00087958

Digitized with financial assistance from the
Government of Maharashtra
on 18 July, 2018

MONOGRAPH

OF THE GENUS

ARGONAUTA.

"The Ocean-Mab, the fairy of the sea."
Byron.

MONOGRAPH

OF THE GENUS

P E C T E N.

" How sweet to muse upon the skill display'd
(Infinite skill!) in all that He hath made,
To trace in Nature's most minute design
The signature and stamp of power divine."—*Cowper.*

NCHOLOGIA ICONICA:

OR,

ILLUSTRATIONS

OF THE

LLS OF MOLLUSCOUS ANIMALS.

VOL. VIII.

CONTAINING MONOGRAPHS OF THE GENERA

PECTEN.	LUTRARIA.	DONAX.
HINNITES.	AMPHIDESMA.	PATELLA.
MACTRA.	MESODESMA.	NASSA.

87958
MT 6-4 nc

BY

LOVELL AUGUSTUS REEVE, F.L.S., F.G.S.,

CORRESPONDING MEMBER OF THE NATURAL HISTORY SOCIETY OF WÜRTEMBERG, AND OF THE LYCEUM OF NATURAL HISTORY OF NEW YORK.

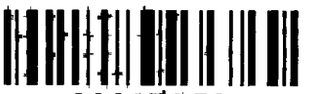
"Hail to thy face and odours, glorious sea!
The spirit of the universe in thee
Is visible; thou hast in thee the life,
The eternal, graceful, and majestic life,
Of nature: and the natural human heart
Is therefore bound to thee with holy love."—*Campbell.*

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

LONDON:

LOVELL REEVE, HENRIETTA STREET, COVENT GARDEN.

1855.


00087958

PECTEN.

PLATE I.

Species 1. (Fig. 1 and 6, Mus. Cuming.)

PECTEN INÆQUIVALVIS. *Pect. testâ inæquivalvi, subrotundatâ, posticè paululum expansâ, undique confertim et minutissimè concentricè striatâ, auriculis inæqualibus; valvâ sinistrâ planulatâ, umbones versus paululum elevatâ, costis octodecim ad viginti elevatis subangulatis, interstitiis excavatis, radiatâ, griseâ, nigricante-cinereo profusè obliquè strigatâ, maculis perpaucis albis notatâ; valvâ dextrâ valde convexâ, ventricosâ, costis octodecim sublatioribus radiatâ, albicante, maculis pallidè cinereo-fuscescentibus sparsim tinctâ; lateribus saturatè strigatis.*

THE INEQUIVALVE PECTEN. Shell inequivalve, nearly round, a little expanded posteriorly, closely and very minutely concentrically striated throughout, ears unequal; left valve flattened, a little raised towards the umboes, rayed with eighteen to twenty raised slightly angular ribs, interstices excavated, grey, profusely obliquely streaked with blackish-ash, and marked with a few white spots; right valve very convex, ventricose, rayed with eighteen rather broader ribs, whitish, sparingly stained with pale ash-brown spots; sides darkly streaked.

SOWERBY, Thesaurus Conch. vol. i. p. 50. pl. 19, f. 193–5.

Hab. Philippine Islands; Cuming.

The obliquely streaked ash marking and the few scattered opake-white spots are very characteristic in this species.

Species 2. (Fig. 2 *a*, Mus. Cuming.)

PECTEN SUGILLATUS. *Pect. testâ suborbiculari, æquivalvi, æquilaterali, auriculis inæqualibus; valvis convexis, costis duabus et viginti subangulatis paululum squamatis radiatis, interstitiis concentricè elevato-striatis; albidâ, livido-olivaceo aurantioque marmoratâ.*

THE BRUISED PECTEN. Shell nearly orbicular, equivalve, equilateral, ears unequal; valves convex, rayed with two-and-twenty subangled slightly squamate ribs, with the interstices concentrically elevately striated; whitish, marbled with livid-olive and orange.

Hab. ——?

The under valve is similarly coloured to the upper, but in a lighter degree.

Species 3. (Mus. Cuming.)

PECTEN NOBILIS. *Pect. testâ æquivalvi, subgibbosâ, radiatim costatâ, costis duabus et viginti, rotundatis, elevatiusculis, concentricè tenuiter crebrè squamato-liratis, interstitiis latiusculis, longitudinaliter trisulcatis; carneo-albidâ, roseo-rufo undique maculatâ et variegatâ; auriculis valde inæqualibus, radiatim squamato-liratis.*

THE NOBLE PECTEN. Shell equivalve, somewhat gibbous, radiately ribbed, ribs two-and-twenty, rounded, rather raised, concentrically finely closely squamately ridged, interstices rather broad, longitudinally three-grooved; flesh-white, spotted and variegated throughout with rose-red; ears very unequal, radiately squamately ridged.

Hab. Japan.

This fine species, newly received from Japan, differs in being of a rounder form than its nearest ally, and not squamate on the ribs, the sculpture consisting merely of very thin short scale-like ridges.

Species 4. (Mus. Cuming.)

PECTEN SOWERBYI. *Pect. testâ subæquivalvi, orbiculari, depressiusculâ, subæquilaterâ, auriculis vix inæqualibus; valvâ sinistrâ concentricè creberrimè elevato-striatâ, costis quatuordecim angustis subdistantibus radiatâ, costis livido-nigricantibus, interstitiis fulvis, ambabus punctis cærulescentibus undique densè aspersis; valvâ dextrâ costis latis quatuordecim radiatâ, albâ.*

SOWERBY'S PECTEN. Shell nearly equivalve, orbicular, rather depressed, nearly equilateral, ears but little unequal; left valve concentrically very closely elevately striated, rayed with fourteen rather distant narrow ribs, ribs livid-blackish, interstices fulvous, both densely sprinkled throughout with light blue dots; right valve rayed with fourteen broad ribs, white.

Pecten aspersus, Sowerby (not of Lamarck), Pro. Zool. Soc. 1835, p. 110.

Hab. Tumbez, Peru.

Readily distinguished by the characteristic sprinkling of light bluish dots upon the dark slate-colouring of the left valve, the right valve being colourless.

Species 5. (Mus. Cuming.)

PECTEN LATIAURITUS. *Pect. testâ subæquivalvi, obliquè subquadratâ, inæquilaterali, tenui, pellucido-corneâ, pallidè ferrugineo-fuscescente, maculis angulatis albis plus minus variegatâ, concentricè sulcato-striatâ, costis obtusè rotundatis subirregularibus ad duodecim obliquè radiatâ.*

THE BROAD-EARED PECTEN. Shell nearly equivalve, obliquely subquadrate, inequilateral, thin, transparent-horny, pale rust-brown, more or less variegated with white angular spots, concentrically groove-striated, obliquely rayed with about twelve somewhat irregular obtusely rounded ribs.

CONRAD, Sowerby, Thesaurus Conch. vol. i. p. 57.

Hab. California.

Of a peculiar thin horny substance, rayed in an oblique direction with about a dozen incompletely developed ribs, mottled with white upon a rust-tinged or bronze ground.

Species 6. (Fig. 2 *b*, Mus. Cuming.)

PECTEN LEUCOPHÆUS. *Pect. testâ suborbiculari, æquivalvi, æquilaterali, auriculis subæqualibus; valvis convexis, costis octodecim subangulatis, striis elevatis ex interstitiis nitidè concentricè decussatis radiatis, costis valvæ dextræ latioribus, plus minus lævigatioribus; cinereo-griseâ, immaculatâ, intus aut albâ aut fuscâ.*

THE GREY PECTEN. Shell nearly orbicular, equivalve, equilateral, ears nearly equal; valves convex, rayed with eighteen sub-angled ribs, neatly concentrically decussated with raised striæ out of the interstices, ribs of the right valve broader and more or less smoother; ash-grey, unspotted, brown or white within.

Hab. —— ?

Of an uniform grey-slate colour without, and more or less tinged with a light bronze-brown within.

PECTEN.

PLATE II.

Species 7. (Fig. 7 and 8. *a*, *b*, Mus. Cuming.)

PECTEN EXASPERATUS. *Pect. testâ subæquivalvi, auriculis grandibus, conspicuè scabrosis, sinistris supernè acutè squamatis; valvâ sinistrâ convexâ, costis octodecim profusè serrato-scabrosis radiatâ, interstitiis scabrosis, fulvâ, olivaceo maculatâ, niveo-albo apersâ, costis quinque albicantioribus, squamis centralibus majoribus; valvâ dextrâ subplaniore, costis septemdecim, profusè serrato-squamatis, omnibus similibus, pallidiore, olivaceo niveoque aspersâ, lateribus acutè squamatis.*

THE SHARPENED PECTEN. Shell nearly equivalve, ears large, conspicuously scabrous, left ears sharply scaled along the tip; left valve convex, rayed with eighteen profusely serrately scabrous ribs, interstices scabrous, fulvous, spotted with olive and sprinkled with snowy white, five of the ribs whiter, with the central scales larger; right valve rather flatter, with seventeen profusely serrately scabrous ribs, all alike, paler, sprinkled with olive and snowy white, sides sharply scaled.

SOWERBY, Thesaurus Conch. vol. i. p. 54. pl. 18. f. 183–186.

Hab. Island of St. John, West Indies.

Mr. Sowerby has erred in quoting the Mediterranean as the habitat of this very characteristic species.

Species 9. (Mus. Cuming.)

PECTEN MAGNIFICUS. *Pect. testâ subæquivalvi, æquilaterali, auriculis inæqualibus, radiatim liratâ, liris auricularum anticarum paucioribus et majoribus; valvis costis tredecim ad quatuordecim, rotundatis, obsoletè nodosis, radiatis, costis interstitiisque longitudinaliter sulcosis, sulcis transversim minutissimè arcuatim striatis; extus intensè corallio-rubrâ, intus albâ, purpureo-marginatâ.*

THE MAGNIFICENT PECTEN. Shell nearly equivalve, equilateral, ears unequal, radiately ridged, ridges of the front ears fewer and larger; valves rayed with thirteen to fourteen rounded, obsoletely nodose ridges, ribs and interstices longitudinally grooved, grooves transversely very minutely arcuately striated; deep coral-red without, white and purple-edged within.

SOWERBY, Pro. Zool. Soc. 1835, p. 109.

Hab. Isle of Plata, West Columbia (in coral sand at a depth of from six to seventeen fathoms); Cuming.

This fine species is not very remotely allied to *P. corallinoides*, although of so very much larger size.

Species 10. (Mus. Cuming.)

PECTEN ASPER. *Pect. testâ inæquivalvi, æquilaterali, auriculis æqualibus, minutè serrato-striatis; valvâ sinistrâ planâ, umbones versus paululum elevatâ, costis octodecim subplano-biangulatis radiatâ, costis interstitiisque concentricè striatis, pallidè rufescente ubique punctulatâ; valvâ dextrâ convexâ, costis novemdecim sublævigatis radiatâ, costis albis, rufescente sparsim lineatis, interstitiis marginem versus rufescentibus.*

THE ROUGH PECTEN. Shell inequivalve, equilateral, ears equal, minutely serrately striated; left valve flat, a little raised towards the umboes, rayed with eighteen rather flatly two-angled ribs, ribs and interstices concentrically striated, dotted everywhere with pale red; right valve convex, rayed with nineteen rather smooth ribs, ribs white, sparingly lineated with red, interstices red towards the margin.

SOWERBY, Thesaurus Conch. vol. i. p. 50.

Pecten tricarinatus? Anton.

Hab. New Guinea; Hinds.

It is a peculiarity in this species, that there is less colouring on the ribs than in the interstices.

Species 11. (Mus. Cuming.)

PECTEN STELLATUS. *Pect. testâ subæquivalvi, tenuiculâ, subcompressâ, paululum altiore quam longâ, auriculis parviusculis, subæqualibus; valvâ sinistrâ costis sex-radiatâ, interstitiisque longitudinaliter liratis et tenuistriatis, rufescente, punctis angulatis albis aspersâ; valvâ dextrâ costis latioribus subrudibus septem-radiatâ, costis interstitiisque liratis, albâ, umbonem versus albi-punctato-rufescente.*

THE STARRY PECTEN. Shell nearly equivalve, rather thin and compressed, a little higher than long, ears rather small, nearly equal; left valve rayed with six ribs, ribs and interstices longitudinally ridged and finely striated, light red, sprinkled with white angular

dots; right valve rayed with seven broader and rather rude ribs, ribs and interstices ridged, white, stained with white-dotted red towards the umbo.

Hab. ——?

Distinguished from *P. Danicus*, to which it is nearly allied, by its conspicuous sculpture of ribs and ridges.

Species 12. (Mus. Cuming.)

PECTEN VELUTINUS. *Pect. testâ subæquivalvi, compressâ, altiore quam longâ, æquilaterali, radiatim liratostriatâ. auriculis subæqualibus; valvâ sinistrâ costis quinque elevatiusculis rotundatis subangustis radiatâ, interstitiis latis, fulvo-rufescente, albo promiscuè strigatâ et punctulatâ; valvâ dextrâ costis sex latis, interstitiis angustis, albâ.*

THE VELVET PECTEN. Shell nearly equivalve, compressed, higher than long, equilateral, radiately ridge-like striated, ears nearly equal; left valve rayed with five raised rounded rather narrow ribs, with the interstices broad, fulvous-red, promiscuously streaked and dotted with white; right valve with six broad ribs and the interstices narrow, white.

SOWERBY, Thesaurus Conch. vol. i. p. 63. pl. 13. f. 31.

Hab. Macassar, Island of Celebes; Hinds.

A delicately formed species, partaking of the character of *P. subplicatus*.

PECTEN.

PLATE III.

Species 13. (Mus. Cuming.)

PECTEN DANICUS. *Pect. testâ suborbiculari, inæquivalvi, tenui, subcompressâ, auriculis subæqualibus, striatis; valvâ sinistrâ plano-convexâ, costis quinque ad sex vix elevatis latiusculis leviter angulatis radiatâ, costis tenuiliratis, interstitiisque undique tenuissimè decussatim striatis, fulvo-rufâ, punctis pallidis promiscuè densè aspersâ; valvâ dextrâ convexiore, costis sex depresso-convexis latioribus, lateribus subrugoso-liratis, albâ, ad umbonem rufescente.*

THE DANISH PECTEN. Shell nearly orbicular, inequivalve, thin, somewhat compressed, ears nearly equal, striated; left valve flatly convex, rayed with five to six ribs but little raised, rather broad, slightly angled, finely ridged, and, with the interstices, everywhere very finely decussately striated, fulvous red, promiscuously densely sprinkled with pale dots; right valve more convex, with six depressly convex broader ribs, sides somewhat roughly ridged, white, tinged with red at the umbo.

CHEMNITZ, Conch. Cab. vol. xi. p. 265. pl. 207. f. 2043.
Pecten aspersus, Lamarck (not of Sowerby).
Ostrea triradiata, Müller.
Ostrea hybrida, Dillwyn.
Pecten pseudamusium, Chemnitz (not of Klein).
Ostrea septemradiata, Gmelin.
Pecten glaber, Montagu.
Pecten nebulosus, Brown.
Pecten Jamesonii, Smith.
Hab. Hebrides, Zetland, Scandinavia.

Extremely variable in form and sculpture, but less variable in colour and marking than many other species of this genus.

Species 14. (Fig. *a* and *b*, Mus. Cuming.)

PECTEN TRANQUEBARICUS. *Pect. testâ trigono-orbiculari, æquivalvi, æquilaterali, auriculis valde inæqualibus; valvis convexiusculis, costis octodecim lævibus elevatis subquadratis, lateribus minutè serratis, radiatâ, interstitiis subprofundè excavatis; colore variâ, albâ, nunc castaneo marmoratâ, nunc aurantio-rufescente tinctâ.*

THE TRANQUEBAR PECTEN. Shell triangularly orbicular, equivalve, equilateral, ears very unequal; valves rather convex, rayed with eighteen smooth raised somewhat square ribs, minutely serrated at the sides, interstices rather deeply excavated; colour various, white, now marbled with chestnut, now tinged with orange-red.
Ostrea Tranquebarica, Gmelin, Syst. Nat. p. 3328.
Pecten Tranquebaricus, Lamarck.
Ostrea undulata, Born.
Ostrea nucleus, Dillwyn (not of Born).
Hab. Tranquebar.

Of an elegant symmetrical growth, extremely variable in colour.

Species 15. (Mus. Cuming.)

PECTEN NODOSUS. *Pect. testâ subæquivalvi, æquilaterali, auriculis inæqualibus; valvis subplano-convexis, costis novem ampliter nodosis radiatis, costis interstitiisque undique nodoso-liratis, costis valvæ dextræ planioribus, latioribus, vix nodosis; valvâ sinistrâ intensè brunneo-rubrâ, dextrâ pallidiore.*

THE KNOBBED PECTEN. Shell nearly equivalve, equilateral, ears unequal; valves rather flatly convex, rayed with nine largely knobbed ribs, ribs and interstices nodosely ridged throughout, ribs of the right valve flatter, broader, scarcely nodose; left valve deep brown-red, right valve paler.
Ostrea nodosa, Linnæus, Syst. Nat. p. 1145.
Pecten nodosus, Lamarck.
Ostrea decemradiata, Gmelin.
Pecten corallinus, Chemnitz.
Hab. Gulf of Mexico.

This fine and well-known species varies from a rich brown-red to a deep coral-red colour.

Species 16. (Mus. Cuming.)

PECTEN PLICA. *Pect. testâ trigono-ovatâ, subæquivalvi, æquilaterali, lateribus versus umbones compressis, auriculis parviusculis, æqualibus; valvis undique striatis, costis tribus ad quinque radiatis, costis valvæ sinistræ rotundatis, elevatis, prope marginem declivibus, valvæ dextræ latioribus, convexis, minus elevatis; valvâ sinistrâ fulvescente-albâ, castaneo-rufo latè marmoratâ, dextrâ albâ, immaculatâ.*

THE FOLD PECTEN. Shell triangularly ovate, nearly equivalve, equilateral, sides compressed towards the umboes, ears rather small, equal; valves striated throughout, rayed with three to five ribs, ribs of the

left valve rounded, raised, slanting down near the margin of the right valve, broader, convex, less raised; left valve fulvous-white, broadly marbled with chestnut-red, right valve white, unspotted.

Ostrea plica, Linnæus, Syst. Nat. p. 1145.

Pecten plica, Lamarck.

Hab. China, Ceylon.

Curiously distinguished by a kind of supplementary growth near the margin, in which the ribs are almost obsolete.

Species 17. (Fig. *a*, *b*, Mus. Cuming.)

Pecten subplicatus. *Pect. testâ subtrigono-ovatâ, subæquivalvi, æquilaterali, compressâ, lateribus versus umbones subcompressis, auriculis æqualibus; valvis undique striatis, costis tribus aut quinque radiatis, costis subelevatis, prope marginem declivibus, valvæ dextræ latioribus; valvâ sinistrâ albo castaneoque variegatâ, versus umbones violascentibus, dextrâ albâ castaneo interdum pallidè tinctâ.*

The subplicate Pecten. Shell somewhat triangularly ovate, nearly equivalve, equilateral, compressed, sides a little compressed towards the umboes, ears equal; valves striated throughout, rayed with three to five ribs, ribs somewhat raised, slanting near the margin, of the right valve broader; left valve variegated with white and chestnut, violet towards the umboes, right valve white, sometimes faintly tinged with chestnut.

Sowerby, Thesaurus Conch. vol. i. p. 64. pl. 13. f. 37, and pl. 14. f. 72, 73, 81.

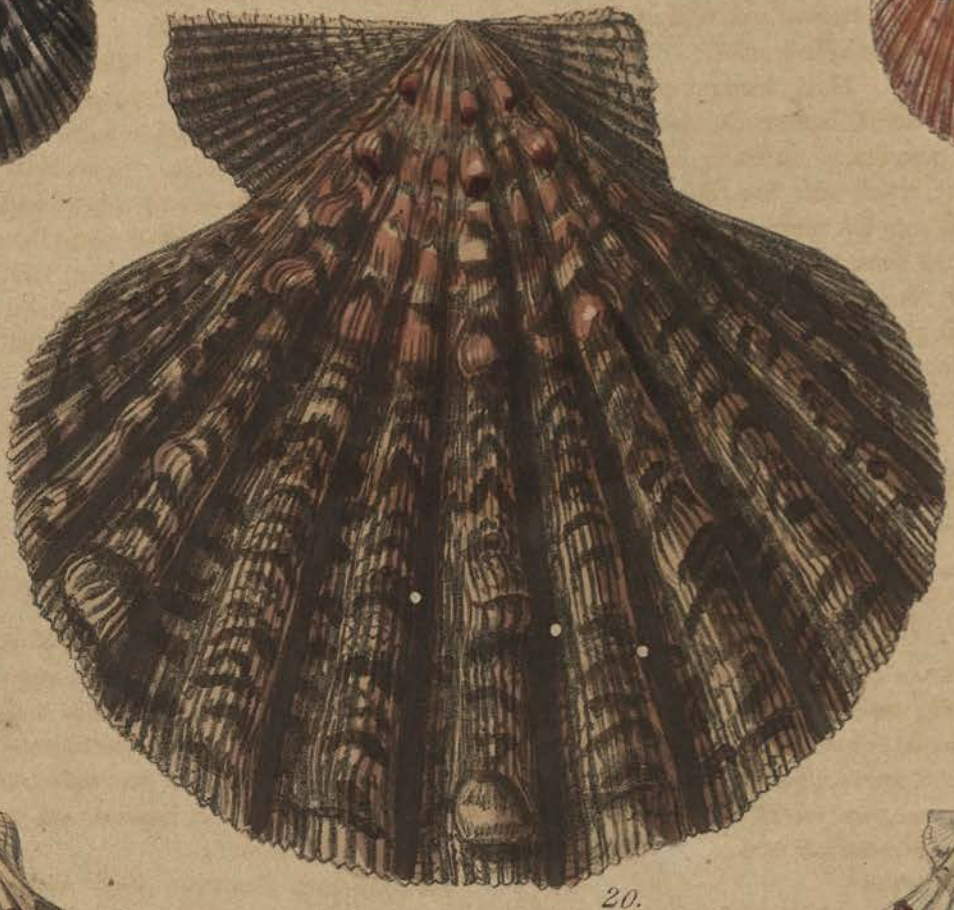
Hab. Island of Corrigidor, Bay of Manila (in coarse sand at the depth of seven fathoms); Cuming.

This appears to be little more than a variety of the preceding species, thinner and more compressed. The detail of character is the same throughout.

18.

19.a

19.b



20.

21.a

21.b

22.

Sowerby, del. et lith.

F. Reeve, imp.

PECTEN.

PLATE IV.

Species 18. (Mus. Cuming.)

PECTEN CLAVATUS. *Pect. testâ trigono-orbiculari, inæquivalvi, æquilaterali, auriculis parvis, inæqualibus; valvis tenuibus, minutè granuloso-striatis, sinistrâ concavo-depressâ, costis quinque tumidiusculis subacutis radiatâ, prope marginem inflatis, aurantio-rufescente, punctis pallidis densè lentiginosâ; valvâ dextrâ convexâ, costis quinque latioribus inflatis, albâ.*

THE STUDDED PECTEN. Shell triangularly orbicular, inequivalve, equilateral, ears small, unequal; valves thin, minutely granulately striated; left valve concavely depressed, rayed with five rather sharp swollen ribs, inflated near the margin, orange-red, densely freckled with light dots; right valve convex, with five broader inflated ribs, white.

POLI, Test. utr. Sicil. pl. 1. f. 17.

Eadem var., *Pecten inflexus*, Poli.

Pecten Dumasii, Payraudeau.

Hab. Sicily.

Very closely allied to *P. Danicus*, and probably only a variety of that species.

Species 19. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN IRREGULARIS. *Pect. testâ obliquè ovatâ, tenuiculâ, subæquivalvi; valvâ dextrâ convexiore, subirregulari, auriculis valde inæqualibus, posticis parvis, brevibus; valvis costis parvis numerosis, vix scabrosis, radiatis; colore variâ, nunc vividè miniaceâ, nunc purpureo-violaceâ, albo maculatâ et obscurè radiatâ, albo interdum fusco-punctato.*

THE IRREGULAR PECTEN. Shell obliquely ovate, rather thin, nearly equivalve; right valve more convex, rather irregular, ears very unequal, the posterior small, short; valves rayed with numerous small slightly scabrous ribs; colour various, now bright vermilion, now purple-violet, blotched and obscurely rayed with white, the white being sometimes dotted with brown.

SOWERBY, Thesaurus Conch. p. 69. pl. 13. f. 51–2.

Hab. Eastern Seas.

An extremely interesting species, bearing some general resemblance to *P. pusio*.

Species 20. (Mus. Cuming.)

PECTEN SUBNODOSUS. *Pect. testâ subæquivalvi, æquilaterali, auriculis inæqualibus; valvis liris angustis numerosissimis radiatis; valvâ sinistrâ costis decem hic illic nodosis, dextrâ costis undecim lævibus radiatâ; purpureo-brunneâ, rufo tinctâ, lineis albis brevibus undatis concentricè notatâ.*

THE SUBNODOSE PECTEN. Shell nearly equivalve, equilateral, ears unequal; valves rayed with very numerous narrow ridges; left valve rayed with ten ribs, here and there nodose; right valve with eleven ribs, smooth; purple-brown, tinged with red, concentrically marked with waved white lines.

SOWERBY, Pro. Zool. Soc. 1835, p. 109.

Hab. Mexico and West Columbia (in sandy mud and coral sand, at a depth of from ten to seventeen fathoms); Cuming.

Most readily distinguished at first sight from *P. nodosus* by its concentric white-waved marking.

Species 21. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN FLABELLOIDES. *Pect. testâ suborbiculari, ad latera prope umbones compressâ, æquivalvi, æquilaterali, auriculis subæqualibus; valvis medio convexis, versus marginem compressis et fortiter radiatim tenuiliratis, costis octo ad novem rotundatis subelevatis radiatis; albâ aut lutescente, castaneo vel purpureo-nigro plus minus marmoratâ.*

THE FAN-LIKE PECTEN. Shell nearly orbicular, compressed at the sides near the umboes, equivalve, equilateral, ears nearly equal; valves convex in the middle, compressed and strongly finely radiately ridged towards the margin, rayed with eight to nine rather elevated rounded ribs; white or yellowish, more or less marbled with chestnut and purple-black.

Hab. Moluccas.

A strongly formed species of very regular and symmetric growth, compressed a little at the sides, after the manner of *P. plica*, but, unlike that species, expanded flatly out towards the margin into the shape of a fan.

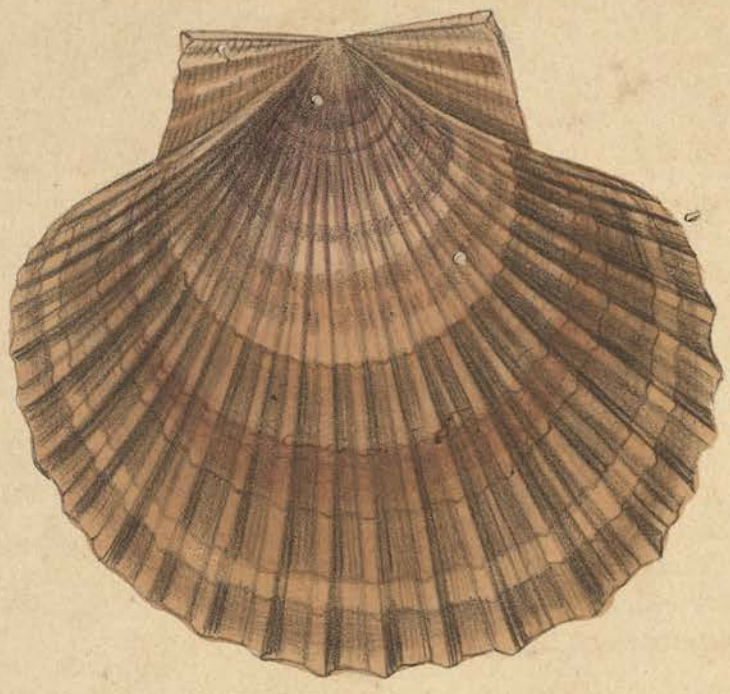
Species 22. (Mus. Cuming.)

PECTEN STRANGEI. *Pect. testâ subtrigono-ovatâ, æquivalvi, plano-compressâ, æquilaterali, auriculis inæqualibus; valvis versus marginem tenuiliratis, costis quinqueradiatis, quarum tribus centralibus latiusculis plano-convexis, distantibus; valvâ sinistrâ lutescente-albâ, costis livido-fuscescentibus; valvâ dextrâ lutescente-albâ, immaculatâ, auriculis violascentibus, lateribus purpureo-roseo strigatis.*

STRANGE'S PECTEN. Shell somewhat triangularly ovate, equivalve, flatly compressed, equilateral, ears unequal; valves finely ridged towards the margin, rayed with five ribs, of which the three central are rather broad, flatly convex, and distant; left valve yellowish-white, ribs livid-brown; right valve yellowish-white, unspotted, ears violet-tinged, sides streaked with purple-rose.

Hab. Moreton Bay, Australia.

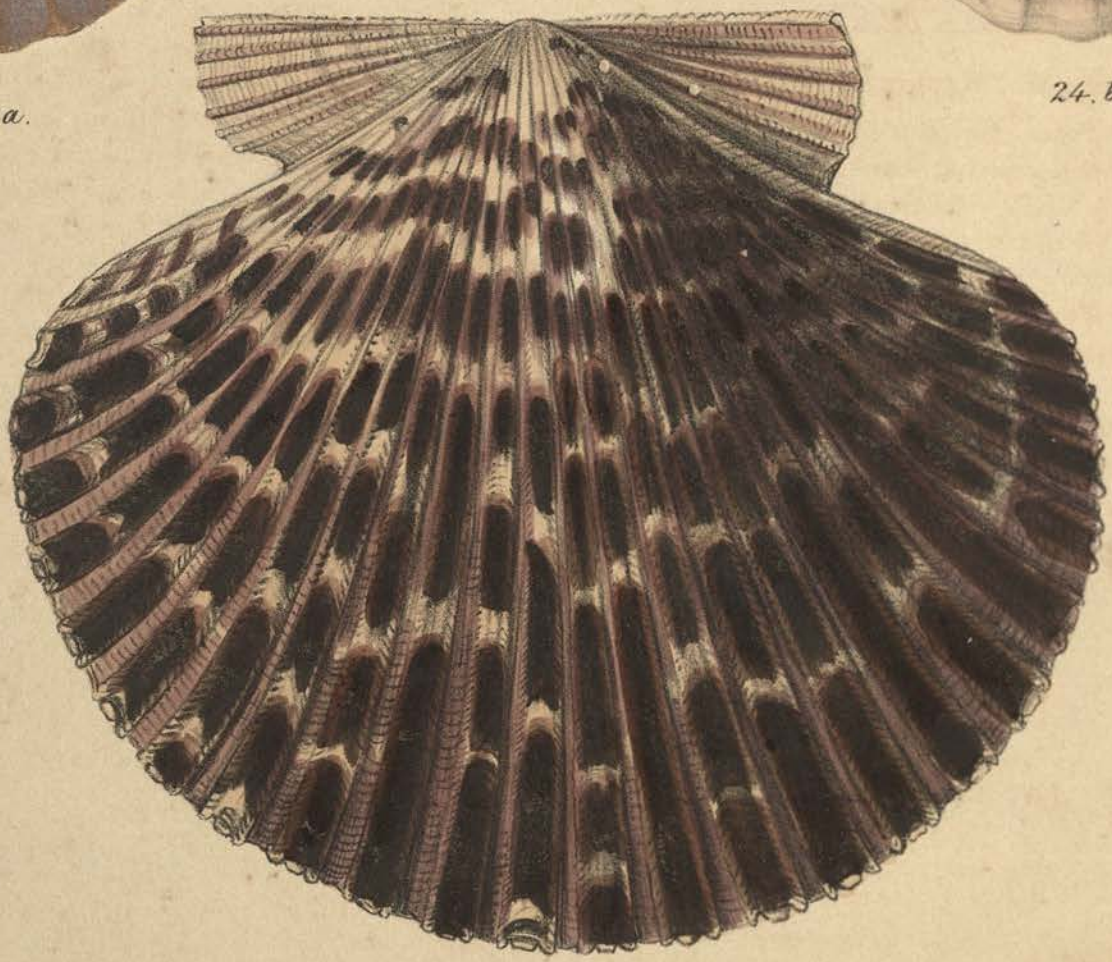
A very characteristic species, flatly compressed, broadly and sparingly ribbed, and strikingly coloured.



23

24. a.

24. b.



25.

Sowerby del et lith.

F. Reeve, imp.

PECTEN.

PLATE V?

Species 23. (Mus. Saul.)

PECTEN SERICEUS. *Pect. testâ orbiculari, inæquivalvi; valvâ sinistrâ planâ, dextrâ convexâ, æquilaterali, sub lente tenuissimè et creberrimè concentricè striatâ, costis viginti medio angulatis subdistantibus nitidè radiatâ; rufescente-spadiceâ, umbones versus roseo tinctâ, valvâ dextrâ pallidiore; auriculis æqualibus, planulatis, eliratis.*

THE SILKY PECTEN. Shell orbicular, inequivalve; left valve flat; right valve convex, equilateral, very broadly and closely concentrically striated, neatly rayed with twenty rather distant middle-angled ribs; reddish fawn-colour, tinged with rose towards the umboes, right valve paler; ears equal, flattened, not ridged.

HINDS, Moll. Voy. Sulphur, p. 60. pl. 17. f. 1.

Hab. Bay of Panama (on a muddy floor at the depth of fifty-three fathoms); Belcher.

Distinguished by its beautifully symmetrical form and sharply angled ribs, which towards the umboes are delicately minutely painted with lake-rose. The only specimen known.

Species 24. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN UNICOLOR. *Pect. testâ suborbiculari, inæquivalvi; valvâ sinistrâ convexâ, dextrâ subplanulatâ, æquilaterali, costis novem ad decem convexis parum elevatis radiatâ, interstitiis radiatim striatis et leviter sulcatis; rufo-aurantiâ, vel albâ purpureo-lacco aut fuscescente tinctâ; auriculis valvæ sinistræ fere æqualibus, dextræ inæqualibus, anticâ subtus emarginatâ et quadridenticulatâ.*

THE ONE-COLOURED PECTEN. Shell nearly orbicular, inequivalve; left valve convex; right valve rather flattened, equilateral, rayed with nine or ten convex slightly raised ribs, interstices radiately striated and lightly grooved; red-orange, or white tinged with purple-lake or light brown; ears of the left valve nearly equal, of the right valve unequal, the front one being emarginated at the lower part, and four-denticled.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 138.

Pecten aurantius, Sowerby.

Hab. Mediterranean and Black Seas.

Varying extremely in colour, but constant in form and sculpture.

Species 25. (Mus. Cuming.)

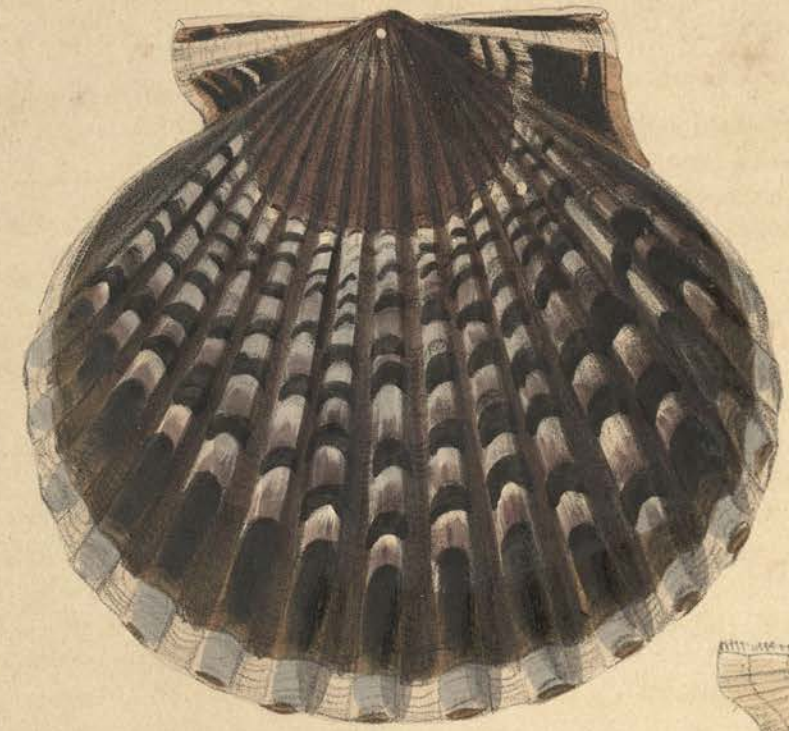
PECTEN PURPURATUS. *Pect. testâ subovatâ, paulo longiore quam altâ, æquivalvi, æquilaterali, valvis crassiusculis, costis duabus et viginti convexo-planis utrinque serratis radiatis, interstitiis lirâ serratâ versus marginem ornatis; costis intensè purpureis, hic illic albo marmoratis, interstitiis purpureo-roseis; auriculis valvæ sinistræ æqualibus, dextræ inæqualibus, anticâ subtus emarginatâ, et subobscurè quadridenticulatâ.*

THE PURPLE-STAINED PECTEN. Shell subovate, a little longer than high, equivalve, equilateral, valves rather thick, rayed with two-and-twenty convexly flattened ribs, serrated on either side, interstices ornamented towards the margin with a serrated rib; ribs very dark purple, mottled here and there with white, interstices purple-lake; ears of the left valve equal, of the right valve unequal, the front one being emarginated below, and obscurely four-denticled.

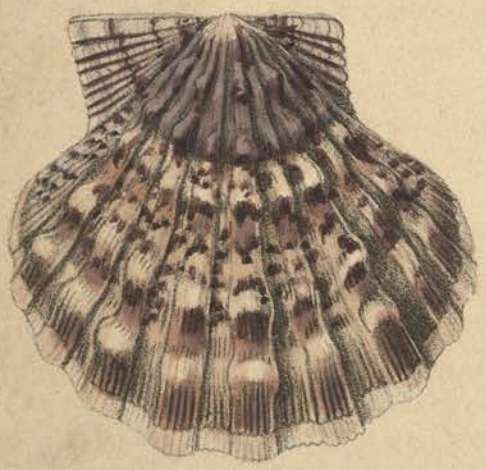
LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 134.

Hab. Bay of Callao, Peru.

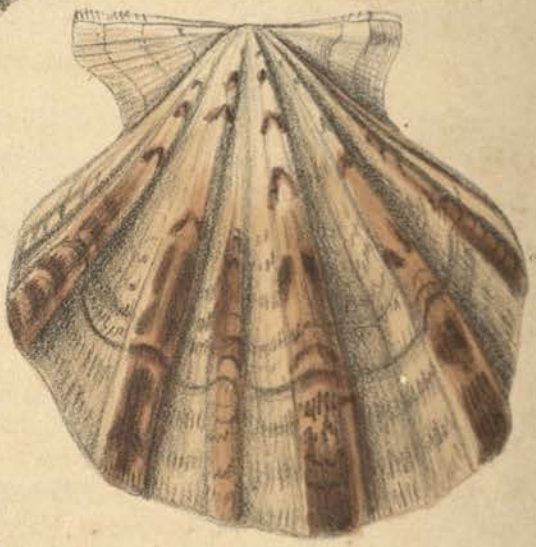
This fine and well-known species may be readily distinguished by its form and mottled purple colouring.



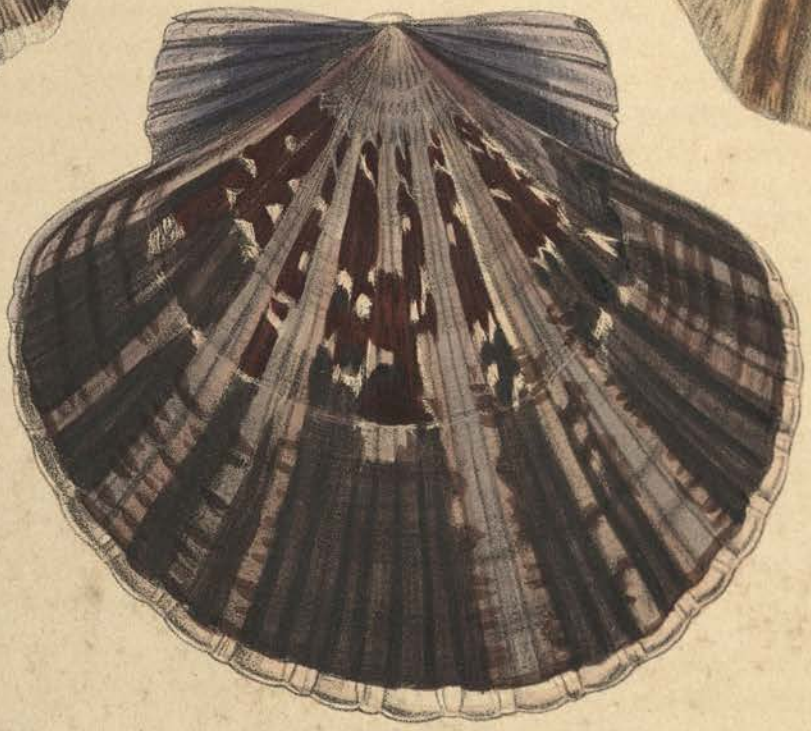
26.



27.



28.



29.

Sowerby, del et lith.

F. Reeve imp.

PECTEN.

PLATE VI.

Species 26. (Mus. Cuming.)

PECTEN IRRADIANS. *Pect. testâ subquadrato-orbiculari, inæquivalvi; valvâ sinistrâ convexâ, dextrâ convexiore, æquilaterali, valvis concentricè creberrimè tenuistriatis, costis quindecim ad sexdecim convexis subelevatis radiatis; valvâ sinistrâ cæruleo-nigrâ aut fuscâ, albo marmoratâ, dextrâ pallidiore, sæpe albâ; auriculis subæqualibus, anticis paululum emarginatis.*

THE BEAMING PECTEN. Shell somewhat squarely orbicular, inequivalve; left valve convex, right valve more convex, equilateral, valves concentrically very closely finely striated, rayed with fifteen to sixteen slightly raised convex ribs; left valve blue-black or brown, mottled with white, right valve paler, often white; ears nearly equal, the front ones a little emarginated.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 143.

Pecten turgidus, Sowerby (not of Lamarck).

Pecten concentricus, Say.

Hab. Mediterranean,

The bluish colouring of this species, which runs into the mottled white spaces, is characteristic.

Species 27. (Mus. Cuming.)

PECTEN CORALLINOIDES. *Pect. testâ suborbiculari, æquivalvi, vix æquilaterali; valvis subventricosis, crassis, costis novem ad decem grandibus turgidis ampliter nodatis radiatis, costis interstitiisque radiatim serratoliratis, costis valvæ dextræ majoribus; albidâ aut purpureo-fuscâ, intensè corallio-rubro plus minus tinctâ et punctatâ, valvâ dextrâ pallidiore, sæpe albâ; auriculis valde inæqualibus.*

THE CORAL-LIKE PECTEN. Shell somewhat orbicular, equivalve, scarcely equilateral; valves subventricose, thick, rayed with nine to ten large, swollen, largely knobbed ribs, ribs and interstices radiately serrately ridged, ribs of the right valve larger; whitish or purple-brown, more or less stained and dotted with deep coral-red, right valve paler, often white; ears very unequal.

D'ORBIGNY, Moll. des Isles Canaries, p. 102.

Hab. Zanzibar.

Very closely allied to *Pecten nodosus*, but of much smaller size, and of a peculiar coral-red painting, stained chiefly on the swollen knobs of the left valve. The specimen here figured is unusually large.

Species 28. (Mus. Cuming.)

PECTEN PES-ANATIS. *Pect. testâ suborbiculari, tenuiculâ, irregulari, æquilaterali, subæquivalvi; valvis radiatim elevato-striatis, costis quinque tumidiusculis distantibus radiatis; valvâ sinistrâ albidâ, fuscescente tinctâ et punctatâ, costis lividis, dextrâ albâ; auriculis valvæ sinistræ subæqualibus, dextræ inæqualibus.*

THE DUCK'S-FOOT PECTEN. Shell somewhat orbicular, rather thin, irregular, equilateral, nearly equivalve; valves radiately elevately striated, rayed with five, rather swollen, distant ribs; left valve whitish, stained and dotted with light brown, ribs livid, right valve white; ears of the left valve nearly equal, of the right valve unequal.

Hab. Moluccas.

A thin species, of curious irregular growth, rayed with five distant livid ribs, having sometimes a trace of an intermediate rib.

Species 29. (Mus. Cuming.)

PECTEN ZICZAC. *Pect. testâ orbiculari, inæquivalvi; valvâ sinistrâ concavo-planâ, dextrâ valde convexâ, æquilaterali; valvâ sinistrâ concentricè tenuissimè striatis, radiatim sulcatis, sulcis ad triginti, irregularibus, dextrâ sulcis ad viginti radiatis, sulcis linearibus, regularibus; rufo-purpureâ, valvâ sinistrâ cinereo promiscuè radiatâ, maculisque paucis albis aspersâ; auriculis æqualibus, distanter sulcatis.*

THE ZIGZAG PECTEN. Shell orbicular, inequivalve; left valve concavely flattened, right valve extremely convex, equilateral; left valve concentrically very finely striated, radiately grooved, grooves about thirty, irregular, right valve rayed with twenty grooves, which are linear and regular; reddish-purple, left valve promiscuously rayed with ash, and sprinkled with small white spots; ears equal, distantly grooved.

Ostrea ziczac, Linnæus, Syst. Nat. p. 1144.

Pecten ziczac, Chemnitz.

Hab. Red Sea and Philippine Islands.

This well-known species is remarkable for its very inequivalve proportions, and rich colouring.

30.

31. a.

31. b.

32.

Sowerby, del. et lith.

F. Reeve, imp.

PECTEN.

PLATE VII.

Species 30. (Mus. Cuming.)

PECTEN DENTATUS. *Pect. testâ semiglobosâ, æquilaterali, inæquivalvi; valvâ dextrâ valde rotundato-convexâ, valvâ sinistrâ concavo-planatâ, in dextrâ immersâ, radiatim costatâ et sulcatâ, costis sexdecim ad septemdecim, liratis et angulatis, costis valvæ dextræ rotundatis, lævibus, ad marginem conspicuè dentatis; valvâ sinistrâ cinereo-fuscâ, purpureo-rufo subtinctâ, dextrâ fulvâ, immaculatâ; auriculis æqualibus, sinistrorsum inclinatis.*

THE TOOTHED PECTEN. Shell semiglobose, equilateral, inequivalve; right valve very rotundately convex, left valve concavely flattened, immersed in the right valve, radiately ribbed and grooved, ribs sixteen to seventeen, ridged and angled, ribs of the right valve rounded, smooth, conspicuously toothed at the margin; left valve ash-brown, faintly tinged with purple-red, right valve fulvous, unspotted; ears equal, bent over towards the left valve.

SOWERBY, Pro. Zool. Soc. 1835, p. 109.

Hab. St. Elena, West Columbia (found among stones and sand in twelve fathoms); Cuming.

Chiefly distinguished by the prominent extent to which the left valve is immersed in the right one, leaving its dentated margin standing conspicuously up all round.

Species 31. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN VENTRICOSUS. *Pect. testâ subglobosâ, æquilaterali, subæquivalvi; valvis, dextrâ paulo majore, crassiusculis, ventricosis, costis octodecim distinctis subplanulatis radiatis, interstitiis concentricè tenuistriatis; purpureo-laccâ, vel nigrâ, albo-marmoratâ, valvâ dextrâ sæpe pallidiore; auriculis majusculis, subæqualibus.*

THE VENTRICOSE PECTEN. Shell somewhat globose, equilateral, nearly equivalve; valves, the right valve being somewhat larger, rather thick, ventricose, rayed with eighteen distinct rather flattened ribs, the interstices between which are concentrically very finely striated; purple-lake, or black, marbled with white, right valve often paler; ears rather large, nearly equal.

Pecten tumidus, Sowerby (not of Turton), Pro. Zool. Soc. 1835, p. 109.

Pecten ventricosus, Sowerby (in Thesaurus Conch.).

Hab. St. Elena, West Columbia (in sandy mud at a depth of six to ten fathoms), and Philippine Islands; Cuming.

Chiefly characterized by its strong ventricose growth, and rich marbled colouring.

Species 32. (Mus. Cuming.)

PECTEN FUMATUS. *Pect. testâ elongato-ovatâ, æquilaterali, inæquivalvi; valvâ sinistrâ concavo-planâ, dextrâ subimmersâ, costis duodecim angustis plano-elevatis, utrinque angulatis subdistantibus radiatâ; valvâ dextrâ valde convexâ, costis latioribus, convexis, prope marginem plus minus evanidis; valvâ sinistrâ intensè fumeo-purpureâ, dextrâ livido-cinereâ, prope umbonem purpureo-rufâ; auriculis æqualibus, sinistrorsum inclinatis.*

THE SMOKED PECTEN. Shell elongately ovate, equilateral, inequivalve; left valve concavely flattened, a little immersed in the right valve, rayed with twelve narrow flatly raised rather distant ribs angled on each side; right valve very convex, with the ribs broader, convex, and more or less fading near the margin; left valve deep smoky-purple, right valve livid-ash, purple-red near the umbo; ears equal, bent forward towards the left valve.

Hab. Sydney, Australia.

Distinguished by the flatly angled form of the left ribs, and peculiar dark smoky colouring.

33.

34.

35.

36.

Sowerby del et lith.

F. Reeve, imp.

PECTEN.

PLATE VIII.

Species 33. (Mus. Cuming.)

PECTEN SINENSIS. *Pect. testâ subelongato-ovatâ, æquilaterali, inæquivalvi; valvâ sinistrâ excavato-concavâ, in dextrâ immersâ, costis undecim subangustis convexo-planulatis utrinque subangulatis radiatâ, rufescente-fuscâ, maculis albidis angularibus rufo-marginatis interdum adspersâ; valvâ dextrâ convexissimâ, costis latis, convexis, confertis, radiatim sulcatis, cinereo-rufâ, versus umbonem indistinctè marmoratâ; auriculis magnis, sinistrorsum inclinatis.*

THE CHINESE PECTEN. Shell rather elongately ovate, equilateral, inequivalve; left valve excavately concave, immersed in the right valve, rayed with eleven rather narrow convexly flattened ribs, slightly angled on both sides, reddish-brown, sometimes sprinkled with red-edged angular white spots; right valve very convex, with the ribs convex, broad, close-set, and radiately grooved, ash-red, mottled towards the umbo; ears large, bent over towards the left valve.

SOWERBY, Thesaurus Conch. vol. i. p. 48. pl. 16. f. 120, 121, and 134.

Pecten excavatus? Anton.

Hab. China.

Chiefly characterized by the concavely immersed growth of the left valve, which is most conspicuous in the young.

Species 34. (Mus. Saul.)

PECTEN FLORIDUS. *Pect. testâ vix elongato-ovatâ, æquilaterali, inæquivalvi; valvis compressis, concentricè tenuistriatis, costis octodecim radiatis; valvâ sinistrâ planâ, medio subconvexâ, costis valde elevatis, angustis, medio angulatis, dextrâ convexâ, costis valde elevatis, prominentibus, utrinque angulatis, medio sulcatis; valvâ sinistrâ roseo-fuscescente, obscurè maculatâ, dextrâ pallidiore, immaculatâ; auriculis æqualibus.*

THE FLORID PECTEN. Shell rather elongately ovate, equilateral, inequivalve; valves compressed, concentrically finely striated, rayed with eighteen ribs; left valve flat, slightly convex in the middle, with the ribs much raised, narrow, angled in the middle; right valve convex, with the ribs much raised, prominent, angulated on each side, grooved down the middle; left valve rose-brown, obscurely spotted, right valve paler, unspotted; ears equal.

HINDS, Moll. Voy. Sulphur, p. 60. pl. 17. f. 6.

Hab. San Diego, California (in mud at the depth of five fathoms); Belcher.

Remarkably distinguished by the prominent development of the ribs, which in the left valve are sharply angled in the middle, and in the right valve are squared and then grooved in the middle.

Species 35. (Mus. Cuming.)

PECTEN FUSCUS. *Pect. testâ subelongato-ovatâ, æquilaterali, inæquivalvi; valvâ sinistrâ planâ, prope umbonem concavâ, in valvâ dextrâ subimmersâ, costis quatuordecim convexis subangustis radiatâ, fuscescente, ustulato-fusco tinctâ et obscurè maculatâ; valvâ dextrâ convexâ, costis quindecim plano-convexis latioribus radiatâ, livido-cinereâ, prope umbonem rufescente maculatâ; auriculis majusculis, sinistrorsum inclinatis.*

THE BROWN PECTEN. Shell somewhat elongately ovate, equilateral, inequivalve; left valve flat, concave near the umbo, a little immersed in the right valve, rayed with fourteen rather narrow convex ribs, light brown, stained and obscurely spotted with burnt brown; right valve convex, rayed with fifteen flatly convex broader ribs, livid-ash, spotted with light red near the umbo; ears rather large, bent over towards the left valve.

KLEIN, Sowerby, Thesaurus Conch. vol. i. p. 47. pl. 16. f. 118, 119.

Hab. Moreton Bay, East Australia; Strange.

Of the same peculiar livid-ash colour on the right valve as in *P. fumatus*.

Species 36. (Mus. Cuming.)

PECTEN NOVÆ-ZELANDIÆ. *Pect. testâ subelongato-orbiculari, æquilaterali, inæquivalvi; valvis concentricè minutissimè striatis; sinistrâ planâ, prope umbonem concaviusculâ, in valvâ dextrâ subimmersâ, costis subangustis convexis quatuordecim nitidè radiatâ, albicante, spadiceo-rufo tinctâ; dextrâ expanso-convexâ, costis quindecim sublatioribus radiatâ, albâ; auriculis æqualibus, sinistrorsum subinclinatis.*

THE NEW ZEALAND PECTEN. Shell somewhat elongately orbicular, equilateral, inequivalve; valves very minutely concentrically striated; left valve flat, rather concave near the umbo, a little immersed in the right valve, neatly rayed with fourteen rather narrow convex ribs, whitish, stained with fawn-red; right valve expandedly convex, rayed with fifteen rather broader ribs, white; ears equal, bent a little forwards towards the left valve.

Hab. New Zealand; Hart.

A beautifully symmetrical neatly-ribbed species, of a delicate subtransparent white, stained on the left valve with rich fawn-red.

---

37. a.

37. b.

37. c.

38.

Sowerby, del et lith.

F. Reeve, imp.

PECTEN.

PLATE IX.

Species 37. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PECTEN GIBBUS. *Pect. testâ subgibbâ, æquivalvi, æquilaterali, costis mediocribus octodecim ad viginti radiatâ, costis interstitiisque minutè creberrimè serrato-liratis, rosaceâ vel albâ, cinereo-nigricante marmoratâ, interdum intensè purpurascente-sanguineâ, immaculatâ, valvâ dextrâ plerumque pallidiore; auriculis subæqualibus.*

THE GIBBOUS PECTEN. Shell rather gibbous, equivalve, equilateral, rayed with eighteen to twenty middling ribs, ribs and interstices minutely very closely serrately ridged, pink or white, marbled with ash-black, sometimes deep purplish blood-colour, unspotted, right valve generally paler; ears nearly equal.

Ostrea gibba, Linnæus, Syst. Nat. (12th edit.) p. 1147.
Pecten gibbus, Lamarck.
Pecten rubicundus, Chemnitz.
Pecten Sowerbyi, Guilding.
Ostrea flabellum, Gmelin.

Hab. Senegal, West Africa.

Mostly of a marbled variegated painting, although the marbling is sometimes wanting.

Species 38. (Mus. Cuming.)

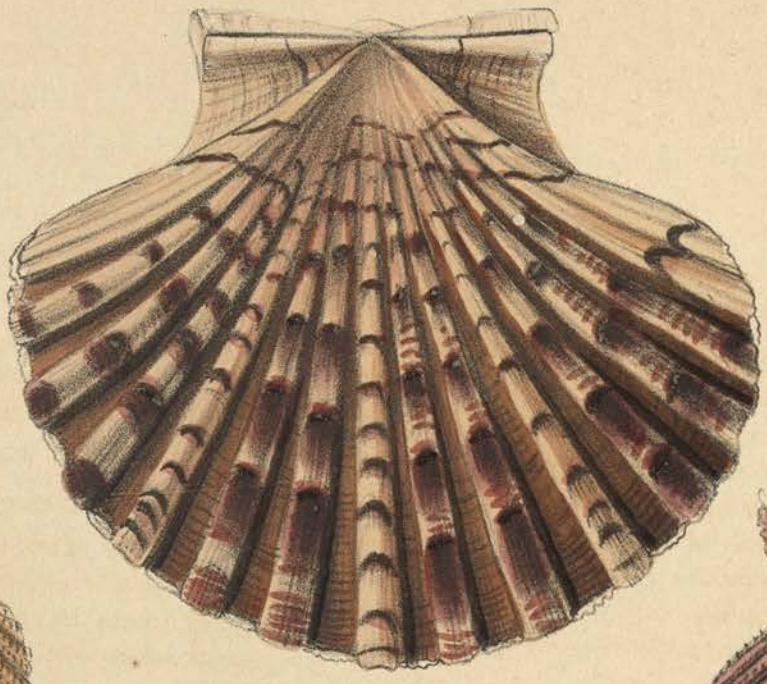
PECTEN MAXIMUS. *Pect. testâ suboblongo-rotundatâ, vix æquilaterali, inæquivalvi, valvis radiatim irregulariter lineari-liratis, costis duodecim ad tredecim convexis; valvâ sinistrâ planulatâ, medio leviter elevatâ, prope umbonem depresso-concavâ, in valvâ dextrâ subimmersâ, rufo-fuscâ, castaneo sparsim maculatâ; valvâ dextrâ convexâ, subgibbâ, albidâ; auriculis æqualibus.*

THE LARGEST PECTEN. Shell somewhat oblong-rounded, nearly equilateral, inequivalve, valves radiately irregularly linearly ridged, with twelve to thirteen convex ribs; left valve flattened, slightly raised in the middle, depressly concave near the umbo, a little immersed in the right valve, red-brown, sparingly spotted with chestnut; right valve convex, rather gibbous, whitish; ears equal.

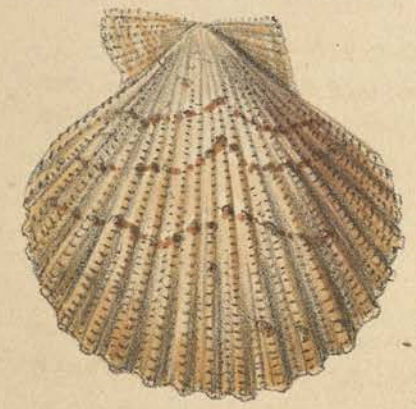
Ostrea maxima, Linnæus, Syst. Nat. (12th edit.) p. 1144.
Pecten maximus, Lamarck.
Pecten vulgaris, Da Costa.

Hab. British and Mediterranean Seas.

This well-known scallop is chiefly distinguished from its nearest ally, the *P. Jacobæus*, by the broad gentle convexity of the right ribs.



39. a.



40. a.

40. b.

39. b.

Sowerby, del et lith.

F. Reeve, imp.

PECTEN.

PLATE X.

Species 39. (Fig. *a*, Mus. Saul, and Fig. *b*, Mus. Cuming.)

PECTEN JACOBÆUS. *Pect. testâ suboblongo-ovatâ, subæquilaterali, inæquivalvi, costis quatuordecim ad quindecim radiatâ; valvâ sinistrâ concavo-planulatâ, costis plus minus elevatis, supernè rotundatis, interdum marginem versus planulatis et tenuè liratis, rufo-fuscâ, purpureo-castaneo maculatâ; valvâ dextrâ albâ, costis acutè quadratis et liratis, in testâ juniore interdum minutè squamatis, interstitiis profundè excavatis; auriculis æqualibus.*

THE ST. JAMES PECTEN. Shell somewhat oblong-ovate, nearly equilateral, inequivalve, rayed with fourteen to fifteen ribs; left valve concavely flattened, ribs more or less raised, rounded at the upper part, sometimes flattened and finely ridged towards the margin, red-brown, spotted with purple-chestnut; right valve white, with the ribs sharply squared and ridged, in the young shell sometimes minutely scaled, interstices deeply excavated; ears equal.

Ostrea Jacobæa, Linnæus, Syst. Nat. (12th edit.) p. 1144.
Pecten Jacobæus, Lamarck.

Hab. Mediterranean.

In the young shell represented at Fig. 39 *a*, the ribs are remarkably raised, those of the right valve being thickly finely squamate throughout.

Species 40. (Fig. *a*, *b*, Mus. Cuming.)

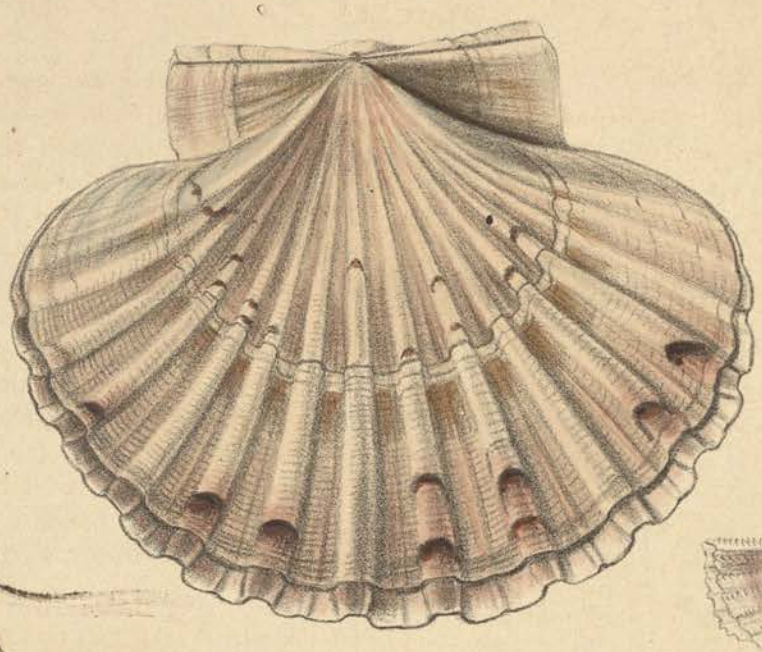
PECTEN SUBRUFUS. *Pect. testâ subrotundatâ, tenui, compressiusculâ, subæquilaterali, æquivalvi, costis ad rugas angustis, liratis et squamatis, radiatâ; purpureo-rufescente, vel aurantiâ, vix maculatâ; auriculis inæquabilibus.*

THE REDDISH PECTEN. Shell nearly rounded, thin, rather compressed, nearly equilateral, equivalve, rayed with about twenty narrow ribs, which are ridged and squamate; purple-red or orange, scarcely spotted; ears unequal.

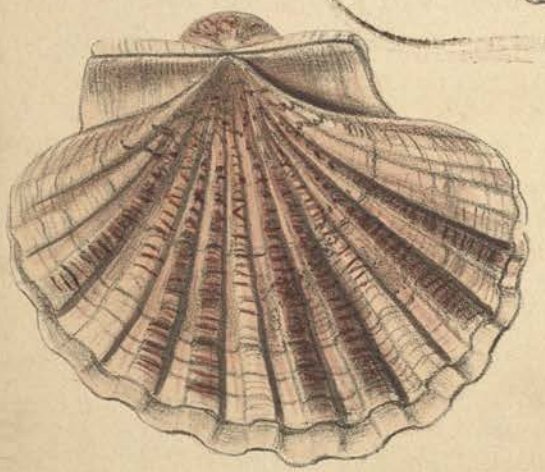
TURTON, Dithyra Brit. p. 210. pl. 17. f. 1.
Pecten opercularis, var., Forbes and Hanley.

Hab. Britain.

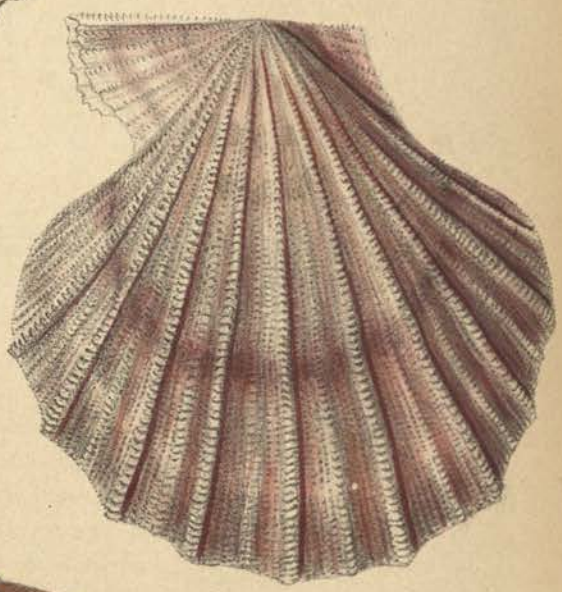
There is little doubt of this being anything more than variety of *P. opercularis*.



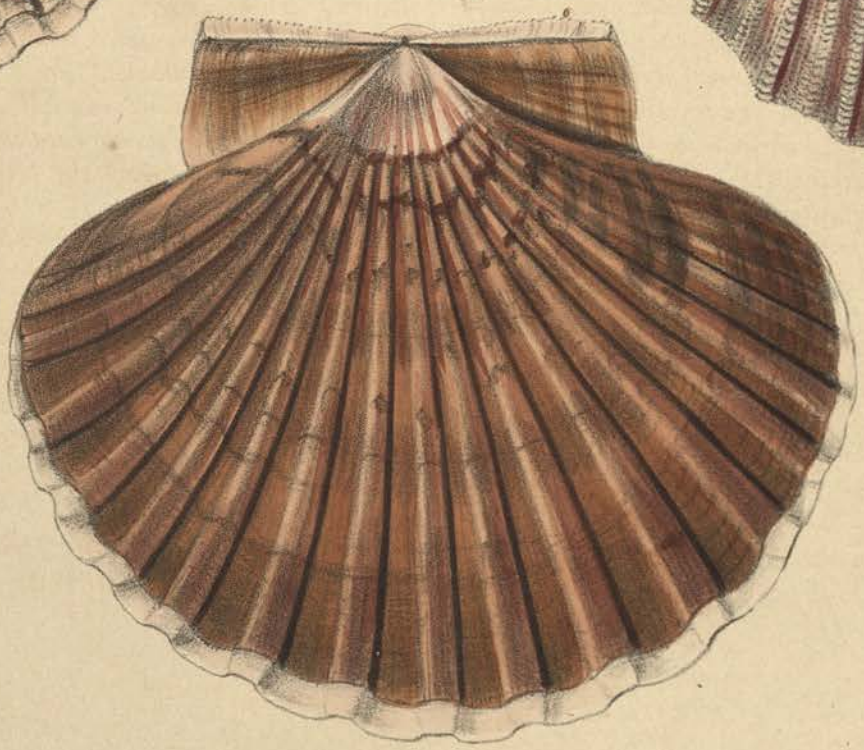
41.



42.



43.



44.

Sowerby del et lith. F.Reeve,imp.

PECTEN.

PLATE XI.

Species 41. (Mus. Saul.)

PECTEN MODESTUS. *Pect. testâ oblongo-ovatâ, æquilaterali, inæquivalvi, costis ad duodecim radiatâ; valvâ sinistrâ planulatâ, prope umbonem concavâ, in valvâ dextrâ subimmersâ, costis parviusculis, convexis, remotis, albâ, maculis perpaucis purpureo-castaneis prope marginem pictâ; valvâ dextrâ gibboso-convexâ, costis latis, subquadratis, medio sulcatis, purpurascente-albâ; auriculis æqualibus.*

THE MODEST PECTEN. Shell oblong-ovate, equilateral, inequivalve, rayed with about twelve ribs; left valve flattened, concave near the umbo, a little immersed in the right valve, ribs rather small, convex, distant, white, painted near the margin with a very few purple-chestnut blotches; right valve gibbously convex, ribs broad, somewhat square, grooved down the middle, purple-white; ears equal.

Hab. Moreton Bay, Australia.

Of a peculiar purplish-white tinge, very sparingly spotted. The ribs of the convex valve are peculiarly characterized by a single groove running down the middle.

Species 42. (Mus. Saul.)

PECTEN FILOSUS. *Pect. testâ subglobosâ, subæquilaterali, inæquivalvi, costis duodecim radiatâ; valvâ sinistrâ subconcavâ, in valvâ dextrâ immersâ, costis subplanulatis, albidâ, purpureo-rufo promiscuè tenuilineatâ et tinctâ, costis saturatioribus; valvâ dextrâ convexâ, valde gibbosâ, costis planulato-convexis, albâ, lineis tenuibus rufis promiscuè pictâ; auriculis æqualibus.*

THE THREAD-PAINTED PECTEN. Shell somewhat globose, nearly equilateral, inequivalve, rayed with twelve ribs; left valve slightly concave, immersed in the right valve, ribs rather flattened, whitish, promiscuously finely lineated and stained with purple-red, ribs darker; right valve convex, very gibbous, ribs rather flatly convex, white, promiscuously painted with fine red lines; ears equal.

Hab. Moreton Bay, Australia.

Another very distinct new species from Australia.

Species 43. (Mus. Cuming.)

PECTEN HASTATUS. *Pect. testâ trigono-ovatâ, altiore quam longâ, æquilaterali, nisi auriculis valde inæqualibus, æquivalvi, valvis leviter convexis, sinistrâ costis decem angustis spinoso-squamatis lirisque numerosis minutè squamatis radiatâ, plus minus intensè roseâ; valvâ dextrâ costis viginti minus elevatis lirisque numerosis squamatis radiatâ, albidâ, prope marginem roseo tinctâ.*

THE SPEARED PECTEN. Shell triangularly ovate, higher than long, equilateral, unless as respects the ears which are very unequal, equivalve, valves slightly convex; left valve rayed with ten narrow spine-scaled ribs, and numerous minutely scaled ridges, more or less deep pink; right valve rayed with twenty ribs, less raised, and numerous scaled ridges, white, stained with pink near the margin.

SOWERBY, Thesaurus Conch. vol. i. p. 72. pl. 20. f. 236.

Hab. —— ?

Of this very delicate and elaborately sculptured species two specimens are now known, one in Mr. Cuming's and one in Miss Saul's collection. A peculiarity in it worth noting is that each spine-scaled rib in the left valve is represented by two smaller ribs in the right valve, and on these the scales are less spinous.

Species 44. (Mus. Cuming.)

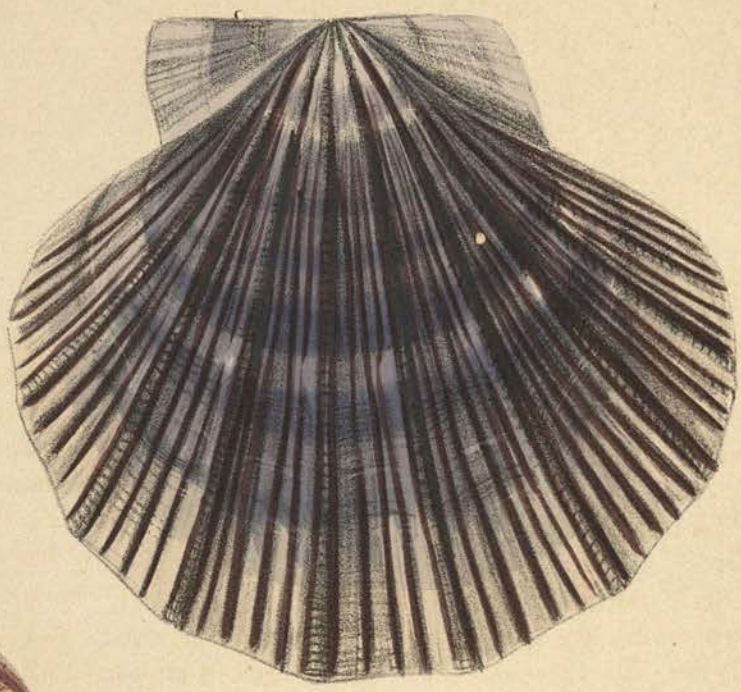
PECTEN MEDIUS. *Pect. testâ suborbiculari, subæquilaterali, inæquivalvi, costis quatuordecim ad quindecim radiatis; valvâ sinistrâ planulatâ, prope umbonem concavâ, in valvâ dextrâ immersâ, costis angustis, convexis, distantibus, rufo-fusco parum maculatâ; valvâ dextrâ convexâ, costis plano-convexis, lævibus, albâ; auriculis æqualibus.*

THE MIDDLE PECTEN. Shell orbicular, nearly equilateral, inequivalve, rayed with fourteen to fifteen ribs; left valve flattened, concave near the umbo, immersed in the right valve, ribs narrow, convex, distant, but little spotted with red-brown; right valve convex, ribs flatly convex, smooth, white; ears equal.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 130.

Hab. West Indies.

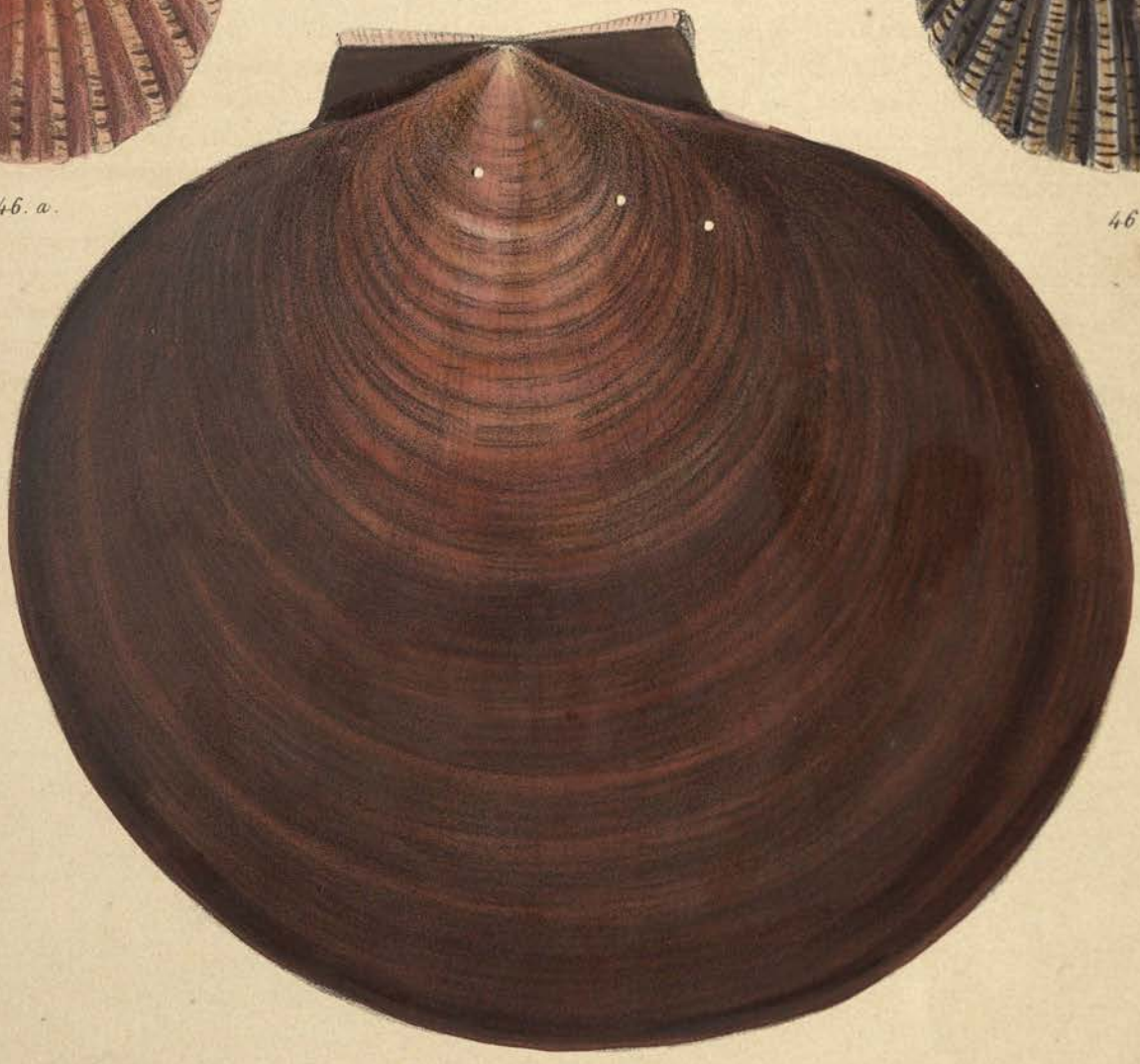
Chiefly distinguished from *P. maximus* and *Jacobæus* by the smooth polished character of the right ribs.



45.

46. a.

46. b.



47.

Sowerby del et lith.

F. Reeve, imp.

PECTEN.

PLATE XII.

Species 45. (Mus. Cuming.)

PECTEN BIFRONS. *Pect. testâ trigono-orbiculari, æquilaterali, vix æquivalvi; valvâ sinistrâ convexâ, costis parvis septem ad octo lirisque numerosis linearibus radiatâ, interstitiis minutè granulatis, violascente, costis lirisque lævibus, intensè violaceis; valvâ dextrâ planiore, ecostatâ, liris radiatâ, interstitiis undique minutè granulatis; auriculis subæqualibus.*

THE TWO-FACED PECTEN. Shell triangularly orbicular, equilateral, scarcely equivalve; left valve convex, rayed with seven to eight small ribs, and numerous linear ridges, interstices minutely granulated, violet, ribs and ridges smooth, deep violet; right valve flatter, not ribbed, rayed with ridges, the interstices being minutely granulated throughout; ears nearly equal.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 131.

Hab. Port Adelaide, South Australia.

The surface of this species, save on the ribs and ridges, is of a peculiar bloom-coloured granular shagreen character.

Species 46. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN SERRATUS. *Pect. testâ ovatâ, paulo altiore quam longâ, tenui, compressâ, inæquilaterali; auriculis valde inæqualibus; inæquivalvi, valvâ dextrâ paulo convexiore, valvis ambabus radiatim costatis et tenuiliratis, costis ad decem, superficiariis, interdum fere obsoletis, squamatis, squamis subdistantibus; cærulescente-cinereâ, vel intensè coccineâ, lineis tenuibus albis promiscuè decussatâ, costis pallidioribus.*

THE SERRATED PECTEN. Shell ovate, a little higher than long, thin, compressed, inequilateral; ears very unequal; inequivalve, right valve a little more convex, both valves radiately ribbed and finely ridged, ribs about ten in number, superficial, sometimes almost obsolete, squamate, scales rather distant; bluish-ash, or deep scarlet, promiscuously decussated with fine white lines; ribs paler.

SOWERBY, Thesaurus Conch. vol. i. p. 69. pl. 13. f. 56.

Hab. Philippine Islands.

A very characteristic species, various in ground-colour, but curiously cross-laced with very delicate white lines.

Species 47. (Mus. Cuming.)

PECTEN JAPONICUS. *Pect. testâ orbiculari, compressâ, utrinque hiante, subæquilaterali, æquivalvi; valvis extus lævibus aut tenuissimè concentricè striatis, fusco-rubente, intus liris angustis binis quatuor vel sex et quadraginta radiatâ, albâ, prope marginem lutescente; auriculis parvis, æqualibus.*

THE JAPAN PECTEN. Shell orbicular, compressed, gaping on each side, nearly equilateral, equivalve; valves outside smooth or very finely concentrically striated, brown-red, inside rayed with from forty-four to forty-six narrow ridges, arranged two and two, white, yellowish near the margin; ears small, equal.

Ostrea Japonica, Gmelin, Syst. Nat. p. 3317.

Pecten Japonicus, Lamarck.

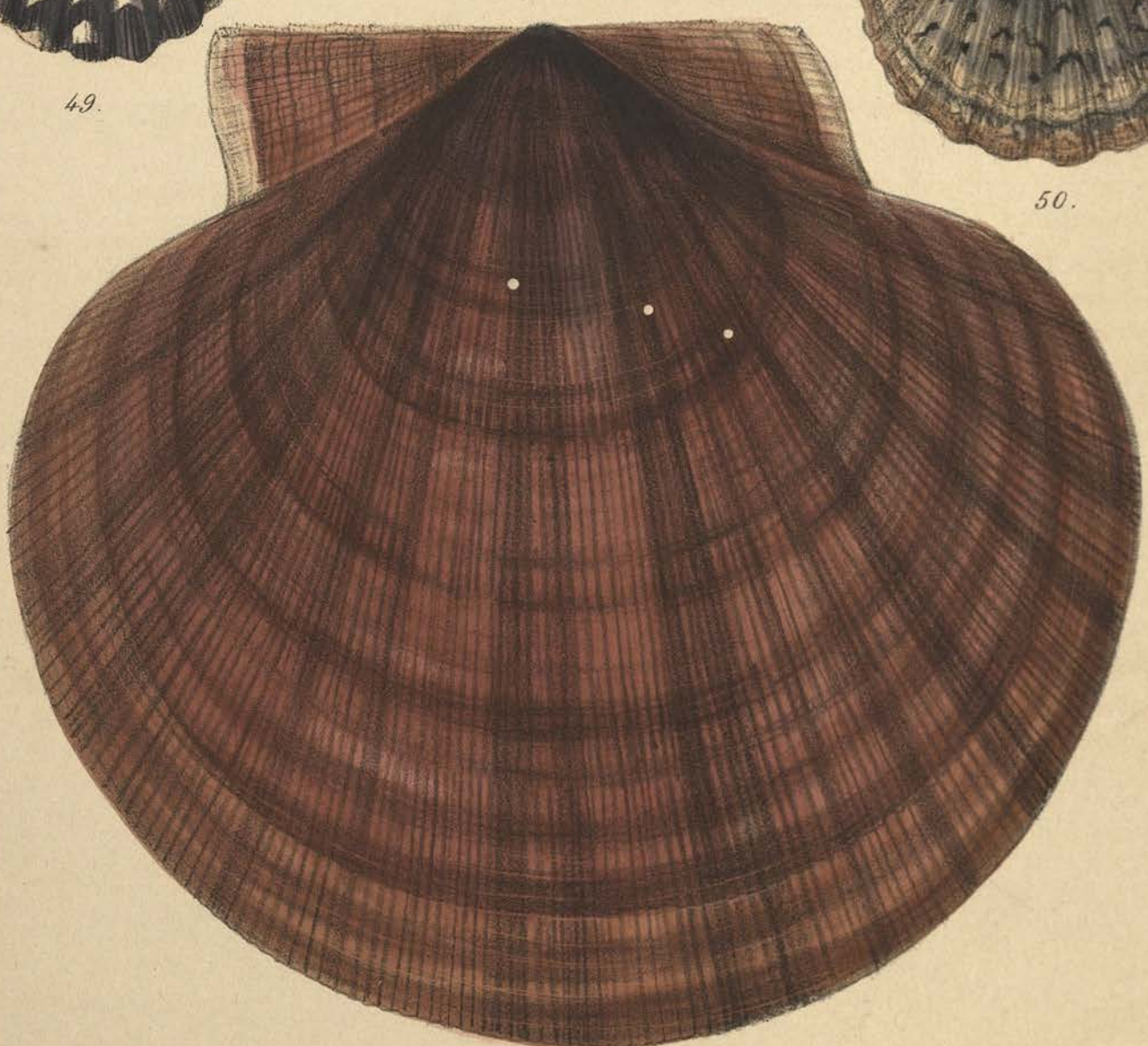
Hab. Japan, China.

Closely allied to *P. pleuronectes*, but of larger and firmer growth, and not rayed in the painting.

48.

49.

50.



51.

Sowerby, del et lith.

F Reeve, imp.

PECTEN.

PLATE XIII.

Species 48. (Mus. Cuming.)

PECTEN PLEURONECTES. *Pect. testâ suborbiculari, æquilaterali, tenuiculâ, æquivalvâ, lævi, compressâ, utrinque subhiante, auriculis æqualibus, parvis, obtusis, internè costis duodecim duplicatis, vel quatuor et viginti singulis radiatâ; valvâ sinistrâ lividо-fulvâ aut purpurascente, lineis tenuibus radiatâ, dextrâ albâ.*

THE RIB-RAYED PECTEN. Shell nearly orbicular, equilateral, rather thin, equivalve, smooth, compressed, a little gaping on each side, auricles equal, small, obtuse, rayed internally with twelve pairs of ribs or twenty-four single ones; left valve livid-fulvous or purplish, rayed with fine lines, right valve white.

Ostrea pleuronectes, Linnæus, Syst. Nat. (12th edit.) p. 1145.

Pecten pleuronectes, Lamarck.

Hab. China.

Chiefly distinguished from *P. Japonicus* by its smaller size, and line-rayed painting.

Species 49. (Mus. Cuming.)

PECTEN DISTANS. *Pect. testâ subaltiore quam longâ, subæquivalvi, æquilaterali, auriculis subgrandibus; valvis decemcostatis, costis sulcisque amplis, prominentibus, tenuiliratis, valvâ sinistrâ ustulato-nigricante, albo-maculato, dextrâ albâ vel lutescente tinctâ.*

THE DISTANT PECTEN. Shell rather higher than long, nearly equivalve, equilateral, auricles rather large; valves ten-ribbed, ribs and grooves large, prominent, finely-ridged, left valve burnt-black, marbled with white, right valve white or yellowish.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 139.

Hab. Philippine Islands; Cuming.

A strongly-developed species, with the ribs and interstices in both valves of about the same width.

Species 50. (Mus. Cuming.)

PECTEN SULCATUS. *Pect. testâ suborbiculari, tenuiculâ, æquivalvi, subæquilaterali; valvis decemcostatis, costis latiusculis, parum elevatis, sulcisque tenuiliratis, valvâ sinistrâ cinereo-fulvâ, punctis nigris aspersâ, dextrâ lutescente, umbonem versus fusco-punctatâ.*

THE GROOVED PECTEN. Shell nearly orbicular, rather thin, equivalve, nearly equilateral; valves ten-ribbed, ribs rather broad, but little raised, with the grooves finely ridged, left valve ash-fulvous, sprinkled with black dots, right valve yellowish, brown-dotted towards the umbo.

BORN, Mus. Cæs. Vindobonensis, pl. 6. f. 3.

Hab. Mediterranean.

This is doubtless the same species as Lamarck's *P. sulcatus*, though he has omitted any reference to Born. It approximates hard upon *P. glaber*.

Species 51. (Mus. Cuming.)

PECTEN MAGELLANICUS. *Pect. testâ orbiculari, subæquilaterali, paululum hiante, inæquivalvi, sinistrâ convexâ, tumidiusculâ, purpurascente-rubrâ, dextrâ multo planiore, albidâ, ambabus creberrimè radiatim scabro-striatis, umbonibus violaceis.*

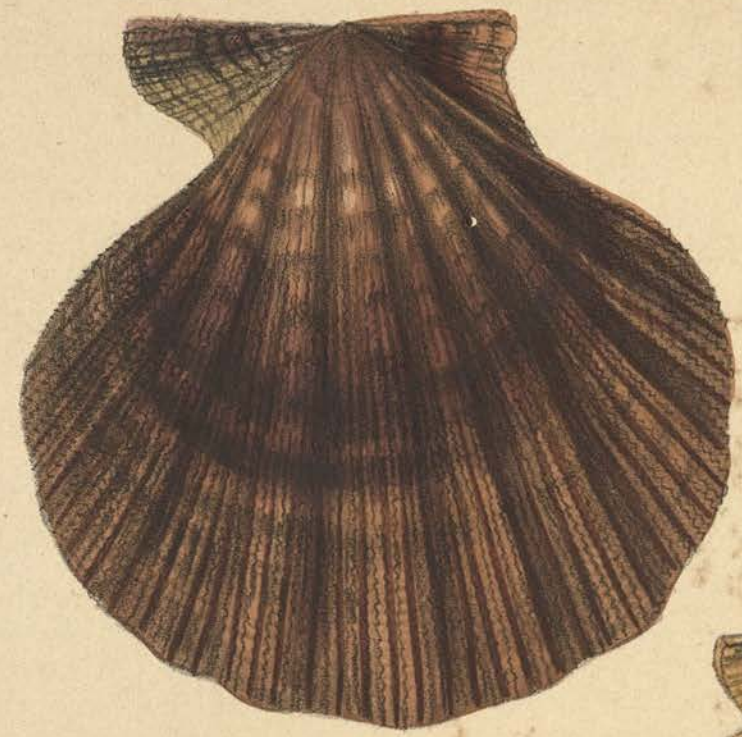
THE MAGELLAN PECTEN. Shell orbicular, nearly equilateral, a little gaping, inequivalve, left valve convex, rather swollen, purple-red, right valve much flatter, whitish, both very closely radiately rough-striated, umboes violet.

Ostrea Magellanica, Gmelin, Syst. Nat. p. 3317.

Pecten Magellanicus, Lamarck.

Hab. Banks of Newfoundland.

The name of this species, suggested by a wrong locality, should be changed, were there not considerations on the subject of nomenclature which forbid it.



52. a.

53. a.

53. b.

52. b.

Sowerby, del et lith.

F. Reeve, imp.

PECTEN.

PLATE XIV.

Species 52. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN ISLANDICUS. *Pect. testâ ovali, subaltiore quam longâ, inæquilaterali, subæquivalvi, nunc compressâ, nunc tumidiusculâ, liris numerosis squamulatis, interdum prope marginem duplicatis, densè radiatâ, interdum obsoletè rudè costatâ; valvâ sinistrâ plus minus intensè purpureâ vel fulvo-rubidâ, dextrâ pallidiore; auriculis valde inæqualibus.*

THE ICELAND PECTEN. Shell oval, rather higher than long, inequilateral, nearly equivalve, now compressed, now rather swollen, thickly radiated with squamulate ridges, which are sometimes duplicate near the margin, sometimes obsoletely rudely ribbed; left valve more or less deep purple or fulvous-red, right valve paler; auricles very unequal.

Ostrea Islandica, Müller, Zoologia Danica, prod. No. 2990.
Pecten Islandicus, Chemnitz.
Ostrea cinnabarina, Born.

Hab. Northern Seas.

This well-known northern species varies extremely. The specimen represented at Fig. 52 *a*, which is swollen and ribbed, with the ridges rather sharply squamulate, is from Greenland. That at Fig. 52 *b*, which is the more common state of the species, is from Iceland.

Species 53. (Fig. *a*, *b*, Mus. Cuming.)

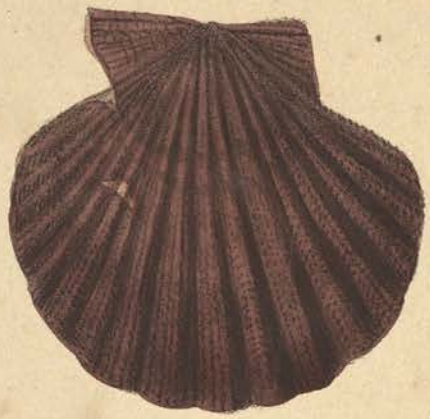
PECTEN GLABER. *Pect. testâ orbiculari, æquilaterali, auriculis subgrandibus, æquivalvi, decemcostatâ et striatâ, costis subdistantibus, alternis sæpe minus prominentibus; valvâ sinistrâ cinereâ, nigro alboque variegatâ, aut luteâ, aut variâ, dextrâ pallidiore, umbonem versus fusco-punctatâ.*

THE SMOOTH PECTEN. Shell orbicular, equilateral, auricles rather large, equivalve, ten-ribbed and striated, ribs rather distant, the alternate ribs often less prominent; left valve ash-colour, variegated with black and white, or yellow, or various, right valve paler, dotted with brown towards the umboes.

Ostrea glabra, Linnæus, Syst. Nat. p. 1146.
Pecten glaber, Chemnitz.
Pecten flavidulus, griseus, and *virgo*, Lamarck.
Ostrea citrina and *rustica*, Poli.
An varietates? *Ostrea lutea, flavescens, aurantia, modesta*, and *depressa*, Gmelin.

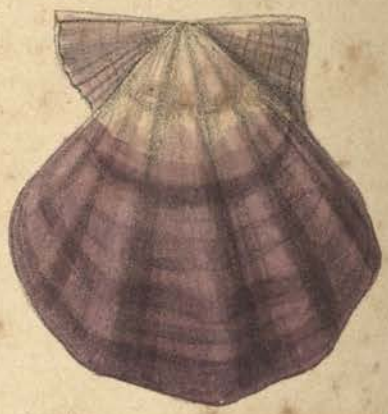
Hab. Mediterranean.

Extremely variable in colouring, but differing little in sculpture, and not at all in form.

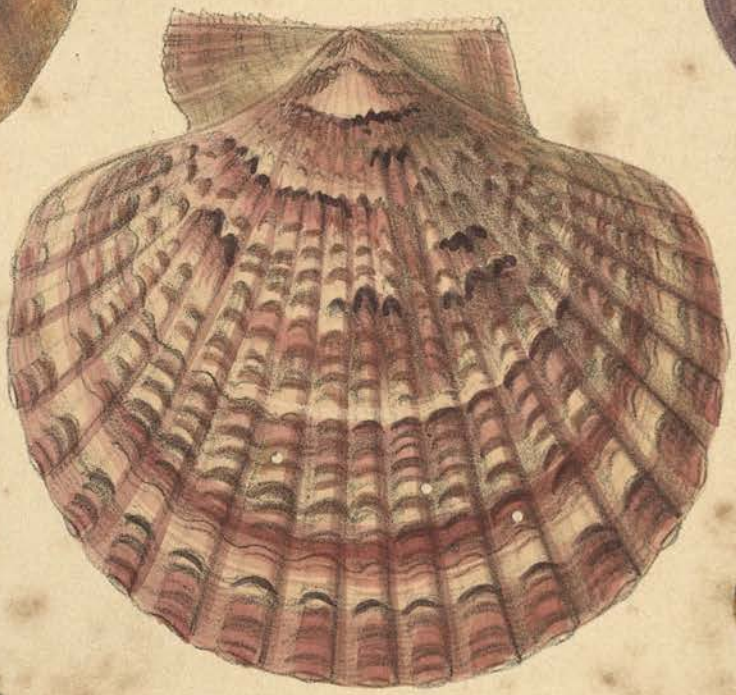


54. a.

55. a.



55. b.



54. b.

55. c.

55. d.

54. c.

Sowerby, del et lith.

F. Reeve, imp.

PECTEN.

PLATE XV.

Species 54. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PECTEN OPERCULARIS. *Pect. testâ orbiculari, æquilaterali, subæquivalvi, ventricosâ, octocostatâ et striatâ, striis interdum scabrosis, albidâ rufo variegatâ, aut lutescente, aut intensè purpureâ, valvâ dextrâ pallidiore; auriculis subæqualibus.*

THE OPERCULAR PECTEN. Shell orbicular, equilateral, nearly equivalve, ventricose, eight-ribbed and striated, striæ sometimes scabrous, whitish, variegated with red, or yellowish, or deep purple, right valve paler; auricles nearly equal.

Ostrea opercularis, Linnæus, Syst. Nat. (12th edit.) p. 1147.

Ostrea dubia, elegans, versicolor, radiata, and *regia*, Gmelin.

Hab. Seas of Europe.

The three specimens here figured of this well-known species represent the extreme variations of colour.

Species 55. (Fig. *a* to *d*, Mus. Cuming.)

PECTEN PROTEUS. *Pect. testâ subquadrato-orbiculari, tenuiculâ, æquilaterali, subæquivalvi, quinquecostatâ et striatâ, costis tumidiusculis, parum elevatis, remotis, griseâ albo variegatâ, aut luteâ, aut rufâ, aut violaceâ, valvâ dextrâ pallidiore, fusco interdum punctatâ; auriculis subæqualibus.*

THE PROTEAN PECTEN. Shell somewhat quadrately orbicular, rather thin, equilateral, nearly equivalve, five-ribbed and striated, ribs rather swollen, but little raised, distant, grey, variegated with white, or yellow, or red, or violet, right valve paler, sometimes dotted with brown; auricles nearly equal.

SOLANDER, Sowerby, Thesaurus Conch. vol. i. p. 59.

Pecten discors, seu disconveniens, Chemnitz.

Hab. Mediterranean.

Though closely allied to *P. glaber*, these have nevertheless a distinctive character, especially in being thin and only five-ribbed.

February, 1853.

56.

57. a.

57. b.

58.

59.

60.

61.

Sowerby, del et lith.

F. Reeve, imp.

PECTEN.

PLATE XVI.

Species 56. (Mus. Cuming.)

PECTEN PSEUDAMUSIUM. *Pect. testâ rotundatâ, tenui, compressâ, subæquilaterali, æquivalvi, valvâ sinistrâ radiatim striatâ, livido-cinereâ, rufo-fusco et fulvo maculatâ, valvâ dextrâ concentricè striatâ pallidiore.*

THE FALSE-COMPASS PECTEN. Shell rounded, thin, compressed, nearly equilateral, equivalve, left valve radiately striated, livid-ash colour, blotched with fulvous and red-brown, right valve concentrically striated, paler.

KLEIN, Meth. Ost. p. 134. pl. 9. f. 31.

Pecten exoticus, Chemnitz.

Ostrea hybrida, Gmelin.

Hab. West Africa.

The left valve of this species is striated radiately, and the right valve concentrically.

Species 57. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN PSEUDO-LIMA. *Pect. testâ suborbiculari, inæquilaterali, auriculis valde inæqualibus, æquivalvi, subventricosâ, radiatim crebricostatâ, costis septem et viginti, hic illic subliratis, ubique acutè squamatis; aurantiâ, albo umbones versus maculatâ, interdum luteâ.*

THE FALSE-FILE PECTEN. Shell nearly orbicular, inequilateral, ears very unequal, equivalve, a little ventricose, radiately closely ribbed, ribs seven-and-twenty in number, here and there slightly ridged, everywhere sharply scaled; orange, spotted towards the umboes with white, sometimes yellow.

SOWERBY, Thesaurus Conch. vol. i. p. 78. pl. 20. f. 235.

Hab. Jacna, Island of Bohol, Philippines; Cuming.

A delicately-coloured species, rayed with numerous close-set, sharply-scaled ribs.

Species 58. (Mus. Cuming.)

PECTEN LAURENTII. *Pect. testâ suborbiculari, æquilaterali, tenuiculâ, valde inæquivalvi, valvâ sinistrâ planulatâ, subflexuosâ, radiatim striatâ, purpureo-rufâ, dextrâ convexâ, albidâ, purpurascente pallidè radiatâ, intus tenuicostatâ, costis ad quadraginti, binis.*

LAURENCE'S PECTEN. Shell nearly orbicular, equilateral, rather thin, very inequivalve, left valve flattened, rather flexuous, radiately striated, purple-red, right valve convex, whitish, faintly rayed with light purple, finely ribbed within, ribs about forty, disposed in pairs.

GMELIN, Syst. Nat. p. 3317.

Hab. China.

Allied to *P. ziczac*, but well distinguished by its thinner and subflexuous structure, as well as in colouring.

Species 59. (Mus. Cuming.)

PECTEN LUCULENTA. *Pect. testâ subtrigonâ, altiore quam longâ, subcompressâ, inæquilaterali, auriculis valde inæqualibus, æquivalvi, radiatim liratâ, et decemcostatâ, costis subacutis, irregularibus, aureo-lutescente, nigricante-fusco in sulcis profusè punctatâ.*

THE BRIGHT PECTEN. Shell somewhat triangular, higher than long, rather compressed, inequilateral, ears very unequal, equivalve, radiately ridged and ten-ribbed, ribs rather sharp, irregular, golden-yellow, profusely dotted within the grooves with blackish-brown.

Hab. Bathurst Island, North Australia.

This pretty species from Australia is nearest allied to *P. pes-felis* and *tigris*.

Species 60. (Mus. Cuming.)

PECTEN MUSCOSUS. *Pect. testâ subglobosâ, æquilaterali, auriculis subelongato-productis, æquivalvi, valvis ventricosis, octodecimcostatis, costis sulcisque densè minutè scabrosis, costis squamis erectis medio subirregulariter armatis; fulvo-rufâ.*

THE MOSSY PECTEN. Shell somewhat globose, equilateral, auricles rather elongately produced, equivalve, valves ventricose, eighteen-ribbed, ribs and grooves thickly minutely scabrous, somewhat irregularly armed down the middle with erect scales; fulvous-red.

WOOD, Index Testaceologicus, Supp. pl. 2. f. 2.

Hab. —— ?

This appears to be a very good species. Both valves are alike, globosely ventricose, and prominently scaled.

Species 61. (Mus. Cuming.)

PECTEN FLEXUOSUS. *Pect. testâ flabellatim rotundatâ, plus minus ventricosâ, æquilaterali, subæquivalvi, valvis radiatim striatis, sinistrâ decemcostatâ, costis alternatim majoribus, fumeo-albidâ, nigro-fusco promiscuè maculatâ, dextrâ decemcostatâ, costis binis, æqualibus, albâ, sparsim punctatâ.*

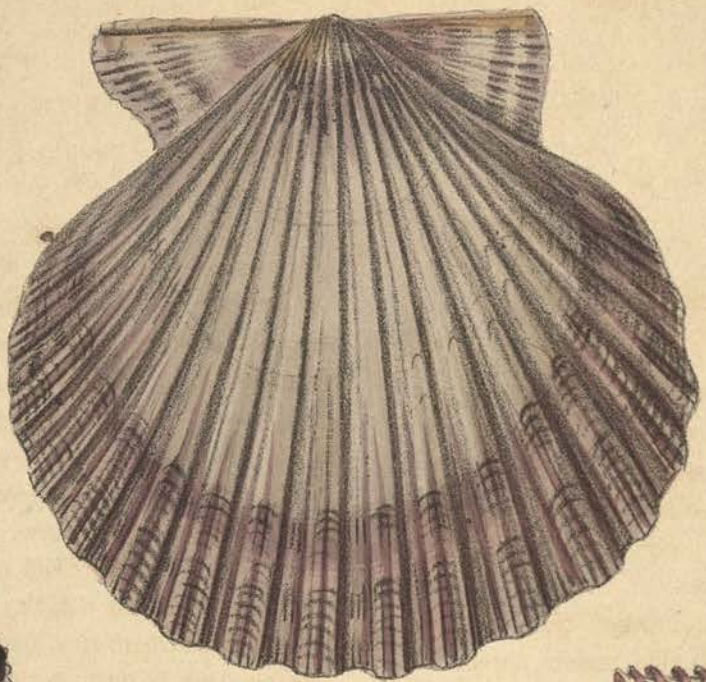
THE FLEXUOUS PECTEN. Shell fan-like rounded, more or less ventricose, equilateral, nearly equivalve, valves radiately striated, left valve ten-ribbed, ribs alternately larger, smoky-white, promiscuously blotched with black-brown, right valve ten-ribbed, ribs equal, disposed in pairs.

Ostrea flexuosa, Poli.

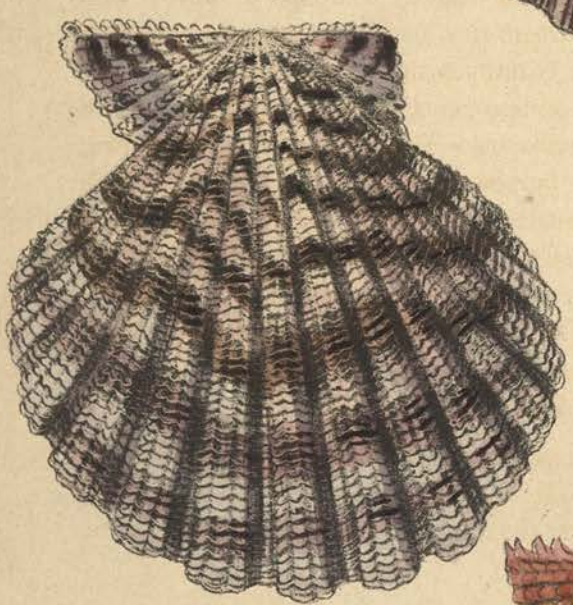
Pecten Isabella, Lamarck.

Hab. Mediterranean.

Allied to *P. glaber*, of the same locality.

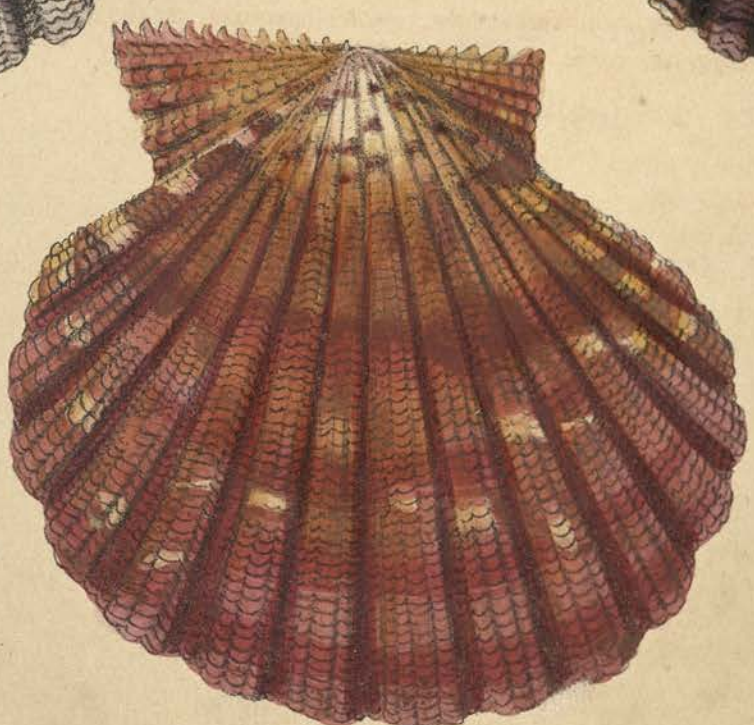


62.



63. a.

63b



63. c.

Sowerby. del et lith.

F. Reeve imp.

PECTEN.

PLATE XVII.

Species 62. (Mus. Cuming.)

PECTEN DARWINII. *Pect. testâ orbiculari, tenuiculâ, æquivalvi, æquilaterali, sexdecimcostatâ, costis subangustis, usque ad umbones distinctis, versus marginem obsoletè obtusè tenuè lirato-squamatis, interstitiis obsoletius lirato-squamatis; rosaceo-albidâ, liris versus marginem purpurascente-roseis; auriculis grandibus, subæqualibus.*

DARWIN'S PECTEN. Shell orbicular, rather thin, equivalve, equilateral, sixteen-ribbed, ribs rather narrow, distinctly formed to the umboes, obsoletely obtusely finely scale-ridged towards the margin, interstices more obsoletely scale-ridged; pink-white, ridges purple-rose towards the margin; ears large, nearly equal.

Hab. Santa Cruz, Patagonia; Darwin.

A characteristic species, collected some years ago, at the above-named locality, by Mr. Darwin, but not hitherto described.

Species 63. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PECTEN PALLIUM. *Pect. testâ orbiculari, æquivalvi, subæquilaterali, crassiusculâ, compressâ, costis duodecim ad quatuordecim radiatâ, costis tripartitis, densissimè et pulcherrimè imbricato-squamatis, squamis plus minus lamellatis, erectis; costarum interstitiis squamato-liratis; intensè aurantio-miniaceâ, violaceâ, aut purpureo-rufâ, albo plus minus concentricè undato-strigatâ, intus albâ, marginem versus colore tinctâ; auriculis inæqualibus, verrucoso-squamatis.*

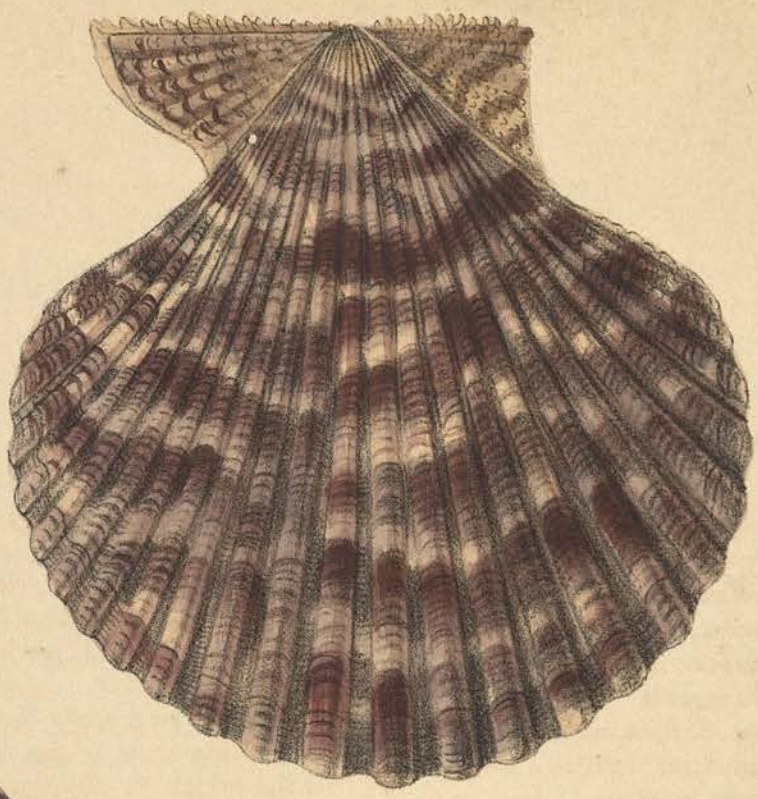
THE MANTLE PECTEN. Shell orbicular, equivalve, nearly equilateral, rather thick, compressed, rayed with twelve to fourteen ribs, which are tripartite, and very densely and beautifully imbricately scaled, the scales being more or less lamellated and erect; interstices between the ribs scale-ridged; deep orange-vermilion, or violet, or purple-red, more or less checkered with white concentric wave-streaks, interior white, more or less stained with colour towards the margin; ears unequal, wart-like squamate.

Ostrea pallium, Linnæus, Syst. Nat. (12th edit.) p. 1145.
Pecten pallium, Lamarck.

Hab. Pacific and Eastern Seas.

The brilliant orange-vermilion specimen here figured was collected by Mr. Cuming at Lord Hood's Island, the violet specimen at the Mauritius, and the purple-red at the Philippine Islands.

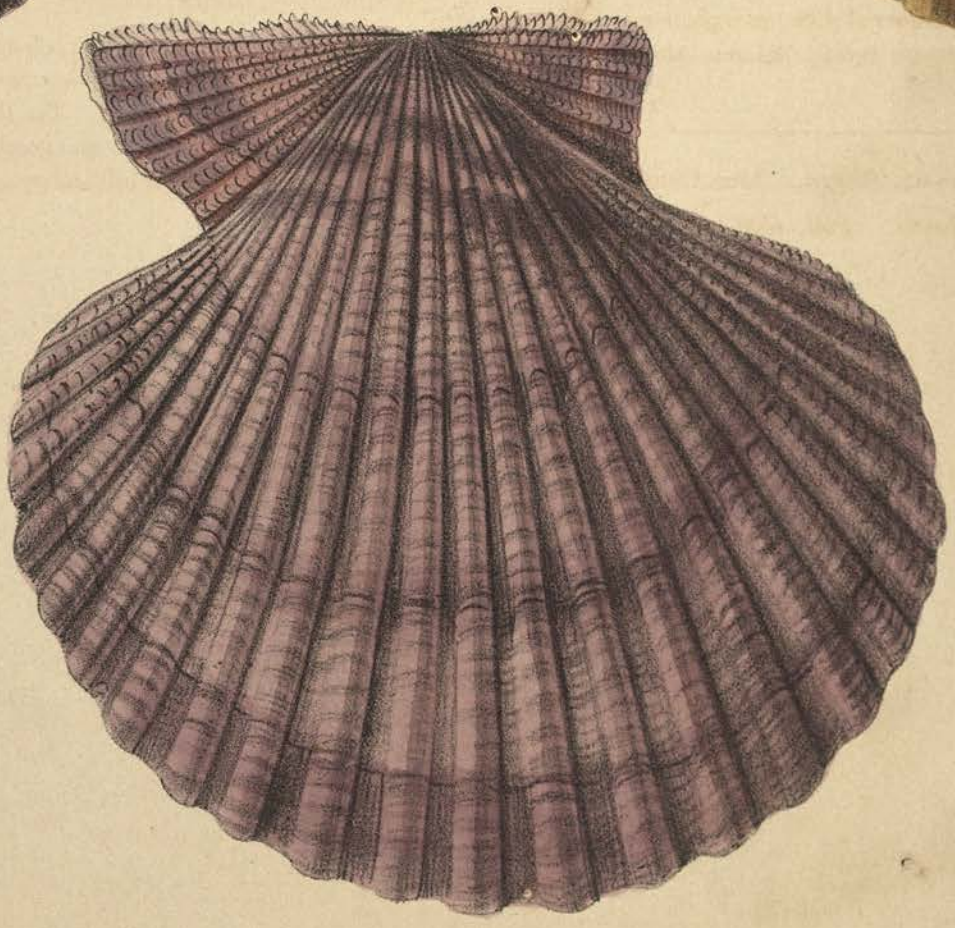
April, 1853.



64. a.

65. a.

65. b.



64. b.

Sowerby, del et lith.

F. Reeve imp.

PECTEN.

PLATE XVIII.

Species 64. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN CRASSICOSTATUS. *Pect. testâ subrotundatâ, interdum altiore quam longâ, aut ventricosâ aut compressâ, æquivalvi, subæquilaterali, costis quatuor et viginti radiatâ, costis obscurè annulatis, lateralibus squamatis, interstitiis lævibus; carneo-albâ, pallidè rufo-variegatâ, aut purpurascente, immaculatâ; auriculis valde inæqualibus, densè squamatis.*

THE THICK-RIBBED PECTEN. Shell subrotundate, sometimes higher than long, either ventricose or compressed, equivalve, nearly equilateral, rayed with twenty-four ribs, which are obscurely ringed, lateral ribs squamate, interstices smooth; flesh-white, variegated with pale red, or purple, unspotted; ears very unequal, densely scaled.

SOWERBY, Thesaurus Conch. vol. i. p. 75. pl. 15 and 17. f. 111 and 152.

Hab. —— ?

The shells here figured differ conspicuously in their general aspect, but are merely different states of the same species.

Species 65. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN SQUAMOSUS. *Pect. testâ subovali, sæpè altiore quam longâ, subæquivalvi, subirregulari, tenuiculâ, plus minus compressâ, costis duodecim ad octodecim subsquamatis planatis ferè obsoletis lirisque plurimis tenuibus radiatâ, versus umbones plano-compressâ; auriculis valde inæqualibus; colore variâ, nunc purpureo-fuscâ, pallidè undato-variegatâ, nunc luteâ vel aurantiâ, albo circa umbones sæpè peculiariter fulguratâ.*

THE SQUAMOSE PECTEN. Shell somewhat oval, often higher than long, nearly equivalve, rather irregular, rather thin, more or less compressed, rayed with twelve to eighteen subsquamate flattened almost obsolete ribs and numerous fine ridges, flatly compressed towards the umboes; auricles very unequal; colour various, sometimes purple-brown, faintly wave-variegated, sometimes yellow or orange, frequently delicately lightning-marked with white round the umboes.

GMELIN, Syst. Nat. Lister, Hist. Conch. pl. 184. f. 21.

Hab. Philippine Islands; Cuming.

Although varying remarkably in colour, the faint scratch-like white lines round the umboes and on the ears are very characteristic when present. The thin flattened obsoletely scaled ribs and ridges are peculiar and constant. At Plate XXI. is figured a brilliant orange variety of this species.

---

66. a.

67.

68.

66. b.

69.

71.

70.

Sowerby del et lith.

F.Reeve imp.

PECTEN.

PLATE XIX.

Species 66. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN PES-FELIS. *Pect. testâ trigono-ovali, altiore quam longâ, æquilaterali, subæquivalvi, costis rudibus obsoletè nodosis subdistantibus octoradiatâ, costis interstitiisque tenuigranosis et liratis; fusco-rufâ, luteo sparsim punctatâ et undato-notatâ; valvâ dextrâ pallidiore; auriculis valde inæqualibus, verrucoso-liratis.*

THE CAT'S-FOOT PECTEN. Shell triangularly oval, higher than long, equilateral, nearly equivalve, rayed with eight rather distant rude obsoletely noduled ribs; ribs and interstices finely grained and ridged; brown-red, sparingly dotted and wave-marked with yellow; right valve paler; ears very unequal, wart-ridged.

Ostrea pes-felis, Linnæus, Syst. Nat. (12th edit.) p. 1146.
Ostrea elongata, Born.
Pecten pes-felis, Lamarck.
Pecten Bornii, Payraudeau.

Hab. Mediterranean.

The primary ribs are the same in all varieties of this species, but there are one or two ribs more than are here mentioned formed at the sides in some specimens.

Species 67. (Mus. Cuming.)

PECTEN SPLENDIDULUS. *Pect. testâ subtrigono-ovali, compressâ, ad latera angulatâ, auriculis valde inæqualibus, obliquè productis, tenuè squamoso-liratis, æquivalvâ, costis rotundatis ad quinque et viginti muricato-squamatis concinnè radiatâ, squamis lateralibus prominentioribus; intensè sanguineo-rufâ, rosaceo-albo ad auriculas et ad latera plus minus promiscuè fasciatâ.*

THE SPLENDID PECTEN. Shell somewhat triangularly oval, compressed, angled at the sides; ears very unequal, obliquely produced, thinly scale-ridged; equivalve, neatly rayed with twenty-five prickly scaled rounded ribs, lateral scales the more prominent; deep blood-red, more or less promiscuously banded at the ears and at the sides with pink-white.

SOWERBY, Thesaurus Conch. vol. i. p. 76. pl. 20. f. 246.

Hab. Singapore.

The pale blotches on the ears and sides of this species are characteristic.

Species 68. (Mus. Cuming.)

PECTEN ORNATUS. *Pect. testâ subtrigono-ovatâ, compressâ, interdum subdistortâ, inæquilaterali, æquivalvi, costis lirisque numerosis angustis, fortibus, irregularibus, granulatis, peculiariter crebriradiatâ; lutescente-albâ, valvâ sinistrâ purpureo-rufo profusè maculatâ, liris duabus vel tribus centralibus ferè immaculatis, valvâ dextrâ purpurascente versus marginem tinctâ.*

THE ORNAMENTED PECTEN. Shell somewhat triangularly ovate, compressed, sometimes a little distorted, inequilateral, equivalve, peculiarly closely rayed with numerous irregular, strong, narrow, granuled ridges; yellowish-white, left valve profusely spotted with purple-red, two or three of the central ridges being almost unspotted, right valve tinged with purple towards the margin.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 150.

Hab. Barbadoes.

This is a very characteristic species, remarkable for the strong laterally compressed irregular development of the ribs and ridges, and in the distribution of colouring matter, which generally leaves two or three of the central ribs more or less without colour. M. Deshayes has inadvertently repeated this name in reference to a fossil species.

Species 69. (Mus. Cuming.)

PECTEN CRUENTATUS. *Pect. testâ subtrigono-orbiculari, altiore quam longâ, æquilaterali, æquivalvi, costis ad septem et viginti, plano-convexis, confertis, centralibus latioribus, obsoletè arcuatim striatis radiatâ; intensè coccineo-rufâ, albido hic illic sparsim maculatâ; auriculis valdè inæqualibus, obliquis, posticis brevissimis.*

THE BLOOD-RED PECTEN. Shell somewhat triangularly orbicular, higher than long, equilateral, equivalve, rayed with about twenty-seven flatly convex close-set ribs, the central being regularly broader; deep scarlet-red, sparingly spotted here and there with white; ears very unequal, oblique, posterior ears very short.

Pecten sanguineus, Sowerby (not of Gmelin).

Hab. Cape Upstart, North Australia; Jukes.

The shell noticed by Mr. Sowerby as a dark variety of

this species, and represented in the plate which follows Fig. 76, is certainly distinct.

Species 70. (Mus. Cuming.)

PECTEN OBLITERATUS. *Pect. testâ orbiculari, tenuiculâ, compressâ, utrinque paululum hiante, æquilaterali, æquivalvi, extus lævigatâ, nitente, intus creberrimè radiatim liratâ; purpurascente-sanguineâ, radiatâ, valvâ dextrâ pallidiore.*

THE WORN PECTEN. Shell orbicular, rather thin, compressed, a little gaping at the sides, equilateral, equivalve, smooth and shining without, very closely radiately ribbed within; purplish-blood colour, right valve paler.

Ostrea obliterata, Linnæus, Syst. Nat. (12th edit.) p. 1146. *Pecten obliteratus*, Lamarck.

Hab. China.

Allied to *P. Laurentii* and *pleuronectes*, but uniformly distinct from either of those species.

Species 71. (Mus. Cuming.)

PECTEN LIVIDUS. *Pect. testâ subquadrato-ovatâ, altiore quam longâ, subirregulari, æquilaterali, æquivalvi, costis creberrimè foliaceo-squamatis decem aut duodecim cum minoribus interpositis irregulariter radiatâ, interstitiis liratis; cupreo-fuscâ, costis majoribus luteis, lineis tenuibus fulgetris albis circa umbones; auriculis inæqualibus, grandibus, obliquis.*

THE LIVID PECTEN. Shell somewhat squarely ovate, higher than long, rather irregular, equilateral, equivalve, irregularly rayed with ten or twelve very closely foliaceous scaled ribs, with small ribs intervening, interstices ribbed; coppery-brown, the larger ribs yellow, with fine whitish zigzag lines around the umboes; ears unequal, large, oblique.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 154.

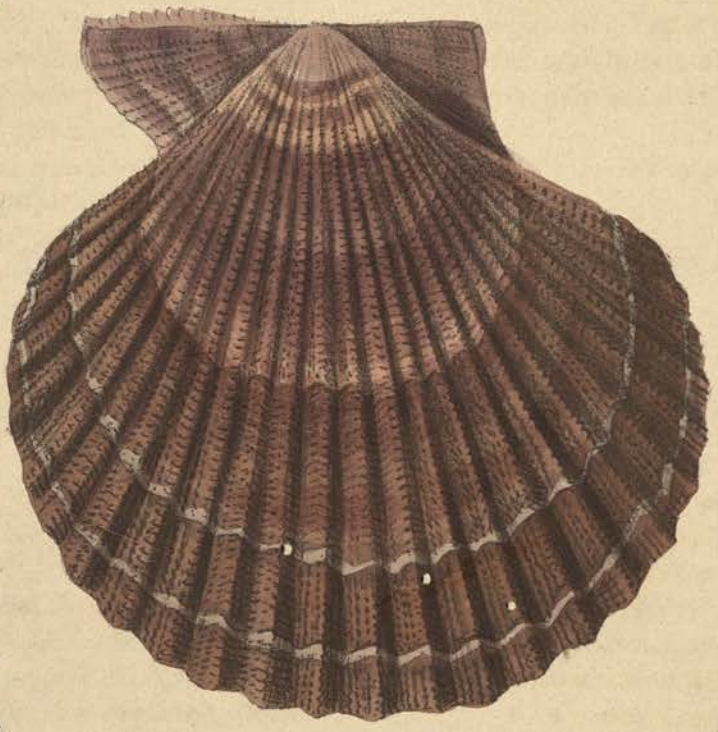
Hab. ——?

This species has a close affinity with *P. squamosus*, although the sculpture is so much more strongly developed.

72.

73.

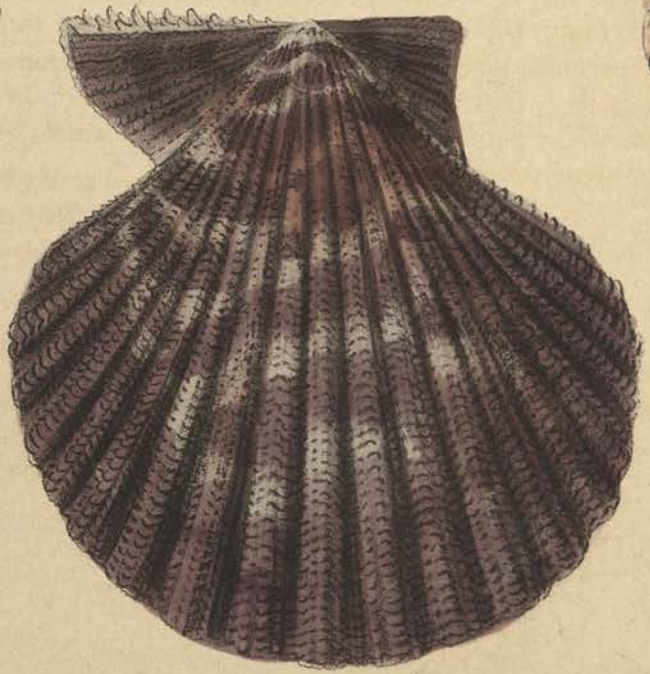
74.



75.

76.

77.



78.

Sowerby. del et lith.

F.Reeve. imp.

PECTEN.

PLATE XX.

Species 72. (Mus. Cuming.)

PECTEN BRUEI. *Pect. testâ subtrigono-orbiculari, subcontortâ, æquilaterali, æquivalvi, profusè irregulariter squamato-costatâ et liratâ; fusco-purpureâ, albo versus umbonem sparsim tinctâ, valvâ dextrâ pallidiore, costis lirisque parviusculis; auriculis valdè inæqualibus.*

BRUE'S PECTEN. Shell somewhat triangularly orbicular, a little twisted, equilateral, equivalve, profusely irregularly squamately ribbed and ridged; brown-purple, sparingly blotched with white towards the umboes, right valve paler, with the ribs and ridges rather smaller; ears very unequal.

PAYRAUDEAU, Cat. Moll. de Corse, p. 78.

Hab. Mediterranean.

Of somewhat contorted growth, very closely irregularly rayed with scaly ribs and ridges.

Species 73. (Mus. Cuming.)

PECTEN UNDULATUS. *Pect. testâ trigono-ovatâ, æquilaterali, subæquivalvi, subtilissimè granulosâ, costis quinque ad sex subdistantibus radiatâ, costis valvæ sinistræ subnodosis, interstitiis latis, tenuiliratis, costis valvæ dextræ latis et tenuiliratis, interstitiis lævioribus; valvâ sinistrâ coccineo-rufâ, albo sparsim maculatâ, intus purpureo-roseâ, dextrâ albâ, versus umbonem purpureo-roseâ; auriculis valdè inæqualibus.*

THE WAVED PECTEN. Shell triangularly ovate, equilateral, nearly equivalve, very finely granuled, rayed with five to six rather distant ribs, ribs of the left valve subnodose, the interstices being broad and finely ridged, ribs of the right valve broad and finely ridged, the interstices being smoother; left valve scarlet-red, sparingly spotted with white, purple-rose within, right valve white, purple-rose towards the umbo; ears very unequal.

SOWERBY, Thesaurus Conch. vol. i. p. 60. pl. 19. f. 206 and 207.

Hab. Mediterranean.

It is doubtful whether this is anything more than a variety of that extremely variable and widely distributed European species, *P. Danicus*.

Species 74. (Mus. Cuming.)

PECTEN SINGAPORINUS. *Pect. testâ orbiculari, valdè compressâ, æquilaterali, æquivalvi, costis ad duabus et viginti subangustis rotundatis elevatis radiatâ, interstitiis excavatis, pulcherrimè concentricè striatis; albidâ vel rufescente-aurantiâ, cinereo-nigricante plus minus nebulatâ, costarum interstitiis excavatis plurimum albis; auriculis subgrandibus, tenuibus, inæqualibus.*

THE SINGAPORE PECTEN. Shell orbicular, very compressed, equilateral, equivalve, rayed by about twenty-two rather narrow rounded raised ribs, interstices excavated, very beautifully concentrically striated; whitish or reddish-orange, more or less clouded with ash-black, interstices between the ribs excavated, mostly white; ears rather large, thin, unequal.

SOWERBY, Thesaurus Conch. vol. i. p. 74. pl. 13. f. 55, and pl. 14. f. 71.

Hab. Singapore.

Remarkable for its compressed and very regular growth, strongly and numerously ribbed, with the interstices neatly closely striated across.

Species 75. (Mus. Cuming.)

PECTEN ASPERRIMUS. *Pect. testâ tenuiculâ, suborbiculari, subæquilaterali, æquivalvi, costis quinque et viginti angulatis, confertis, undique subtiliter scabroso-liratis radiatâ, fusco-rufescente, immaculatâ; auriculis inæqualibus, obliquis.*

THE VERY ROUGH PECTEN. Shell rather thin, suborbicular, nearly equilateral, equivalve, rayed with twenty-five close-set angled ribs, finely scale-ridged throughout, brown-red, unspotted; ears unequal, oblique.

LAMARCK, Anim. sans vert (Deshayes' edit.) vol. vii. p. 145.

Hab. Van Diemen's Land.

The ribs are broad at the base, and adjoin without any intermediate groove. They are then angled to a keel at the summit, and are finely scale-ridged all over.

Species 76. (Mus. Cuming.)

PECTEN LENTIGINOSUS. *Pect. testâ subtrigono-oblongâ, altiore quam longâ, compressiusculâ, subæquilaterali, æquivalvi, costis angulatis foliaceo-squamatis ad duabus*

et viginti radiatâ; albidâ, nigro lentiginosâ, umbonibus purpureo-rufis, intus livido-fumeâ; auriculis inæqualibus.

THE FRECKLED PECTEN. Shell somewhat triangular-oblong, higher than long, rather compressed, nearly equilateral, equivalve, rayed with about twenty-two foliaceous-scaled angular ridges; whitish, freckled with black, umboes purple-red, interior of a livid smoky hue; ears unequal.

Hab. Island of Ticao, Philippines (under stones at low water); Cuming.

This is the shell figured and described by Mr. Sowerby as a variety of *P. sanguineus*, but it differs from that species in the following important particulars. The posterior ears are less obliquely shortened, and the ribs are less numerous, while they are angled and foliaceous-scaled.

Species 77. (Mus. Cuming.)

PECTEN TIGRIS. *Pect. testâ obliquè subtrigonâ, tenuiculâ, inæquilaterali, vix æquivalvâ, valvâ dextrâ convexiore; decemcostatâ, costis interstitiisque undique radiatim liratis et subtilissimè granulatis; croceo-albâ, valvâ sinistrâ rufo-nigro concentricè undato-strigatâ, dextrâ sparsim maculatâ, umbonibus croceis; auriculis valdè inæqualibus.*

THE TIGER PECTEN. Shell obliquely subtriangular, rather thin, inequilateral, scarcely equivalve, the right valve being more convex, ten-ribbed; ribs and interstices radiately ridged and very finely granulated throughout; yellow-white, left valve concentrically wave-streaked with red-black, right valve sparingly spotted, umboes yellow; ears unequal.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 141.

Hab. Philippine Islands; Cuming.

The yellow colouring which characterizes this species is more or less strongly stained through into the interior.

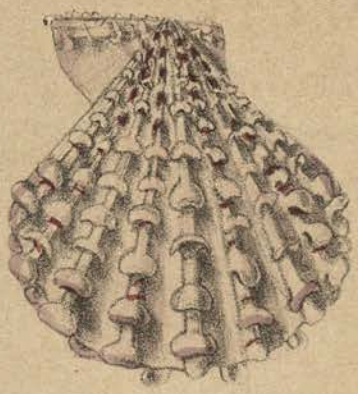
Species 78. (Mus. Cuming.)

PECTEN PRUNUM. *Pect. testâ suborbiculari, subcompressâ, æquilaterali, æquivalvâ, costis liratis octodecim, undique pulcherrimè foliaceo-squamatis, radiatâ; purpurascente-carneâ, albo hic illic sparsim lentiginosâ; auriculis inæqualibus, nitidè et profusè squamatis.*

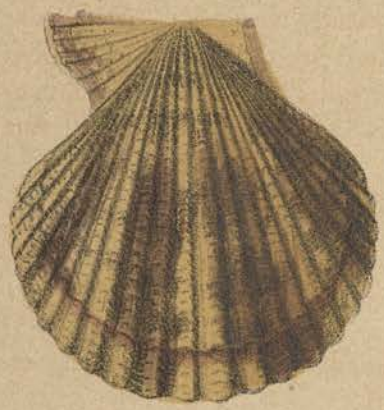
THE PLUM-COLOURED PECTEN. Shell nearly orbicular, rather compressed, equilateral, equivalve, rayed with eighteen ridged ribs, which are very beautifully foliaceous-scaled throughout; purplish-flesh, sparingly freckled here and there with white; ears unequal, neatly and profusely scaled.

Hab. Moreton Bay, Australia; Strange.

A very elaborately sculptured species, allied to *P. asperrimus*, from which it differs chiefly in the ribs being broader and more rounded, more highly scaled, and fewer in number. It is delicately tinged throughout with a plum-like bloom.



79.



80. a.

80. b.

81.

65. c.

82.

83.

Sowerby, del. et lith.

F. Reeve imp.

PECTEN.

PLATE XXI.

Species 79. (Mus. Cuming.)

PECTEN IMBRICATUS. *Pect. testâ subtrigono-ovatâ, subæquilaterali, auriculis valdè inæqualibus, inæquivalvi, valvâ dextrâ convexiore, valvis ambabus novemcostatis, costis subangustis, tuberculis peculiariter globoso-fornicatis ornatis; opaco-albâ, valvâ sinistrâ maculis perpaucis intensè roseis ornatâ, valvarum facie internâ croceâ, prope marginem violaceâ.*

THE IMBRICATED PECTEN. Shell somewhat triangularly ovate, nearly equilateral, ears very unequal, inequivalve, right valve more convex, both valves nine-ribbed, ribs rather narrow, ornamented with peculiarly globosely-arched tubercles; opake-white, left valve ornamented with a few deep rose spots, interior of the valves saffron-yellow, violet towards the margin.

Ostrea imbricata, Gmelin, Syst. Nat. p. 3318.

An eadem? *Ostrea sauciata*, Gmelin.

Hab. Red Sea.

Remarkably characterized by the swollen vaulted scales gracefully drooping over towards the margin.

Species 80. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN LAYARDI. *Pect. testâ suborbiculari, auriculis inæqualibus, obliquis, æquilaterali, subæquivalvi, valvâ sinistrâ subconvexiore, valvis costis duabus et viginti, ad latera subsquamatis, radiatis; croceâ aut violaceâ, saturatè hic illic marmoratâ.*

LAYARD'S PECTEN. Shell nearly orbicular, ears unequal, oblique, equilateral, nearly equivalve, left valve rather the more convex, valves rayed with twenty-two ribs a little squamate at the sides; saffron-yellow or violet, marbled here and there darker.

Hab. Ceylon; Layard.

An interesting new species, brought from Ceylon by Mr. Layard, after whom, at the request of Mr. Cuming, I have the honour to name it.

Species 81. (Mus. Cuming.)

PECTEN SENATORIUS. *Pect. testâ orbiculari, subdepressâ, æquilaterali, subæquivalvi, valvâ dextrâ subplanâ, valvis costis viginti ad quatuor et viginti obtusè serratis confertis radiatis; miniaceo-rufâ, albo nigro-nebulato hic illic marmoratâ; auriculis inæqualibus.*

THE SENATOR'S PECTEN. Shell orbicular, somewhat depressed, equilateral, nearly equivalve, right valve rather flat, valves rayed by twenty to twenty-four close-set obtusely-serrated ribs; vermilion-red, marbled here and there with black-clouded white; ears unequal.

Ostrea senatoria, Gmelin, Syst. Nat. p. 3327.

Ostrea porphyrea, Gmelin.

Pallium porphyreum, Chemnitz.

Hab. Moluccas, etc.

A richly coloured species, of simple character and extremely symmetrical growth.

Species 65. (Fig. *c*, Mus. Cuming.)

A richly coloured orange variety of *P. squamosus*, referred to at Pl. XVIII.

Species 82. (Mus. Cuming.)

PECTEN SQUAMATUS. *Pect. testâ subtrigono-orbiculari, tenui, irregulari, inæquilaterali, subæquivalvi, compressâ, valvis costis septem aut pluribus, distanter squamatis, radiatâ, costarum interstitiis plus minus latis, obscurè liratis; albidâ, fuscescente-carneo tinctâ; auriculis subæqualibus.*

THE SQUAMATE PECTEN. Shell somewhat triangularly orbicular, thin, irregular, inequilateral, nearly equivalve, compressed, valves rayed with seven or more distantly scaled ribs, interstices between the ribs more or less broad, obscurely ridged; whitish, stained with light brown-flesh; ears nearly equal.

Ostrea squamata, Gmelin, Syst. Nat. p. 3329.

Hab. St. Nicolas, Island of Zebu, Philippines; Cuming.

The growth of this species is very irregular, the ridges in the under valve being partially developed here and there into scaled ribs.

Species 83. (Mus. Cuming.)

PECTEN RADULA. *Pect. testâ subtrigono-ovatâ, altiore*

quam longâ, crassiusculâ, compressâ, undique peculiariter scabrâ, concentricè undato-lineatâ, æquilaterali, subæquivalvi, valvâ dextrâ convexiore, valvis costis sulcatis duodecim fortiter radiatis; flavicante, valvâ sinistrâ rufo-nigro maculatâ.

THE GRATER PECTEN. Shell somewhat triangularly ovate, higher than long, rather thick, compressed, peculiarly rough throughout, concentrically wave-lined, equilateral, nearly equivalve, right valve the more convex, valves strongly rayed with twelve grooved ribs; yellowish, left valve spotted with red-black.

Ostrea radula, Linnæus, Syst. Nat. p. 1145.

Ostrea maculosa? Gmelin.

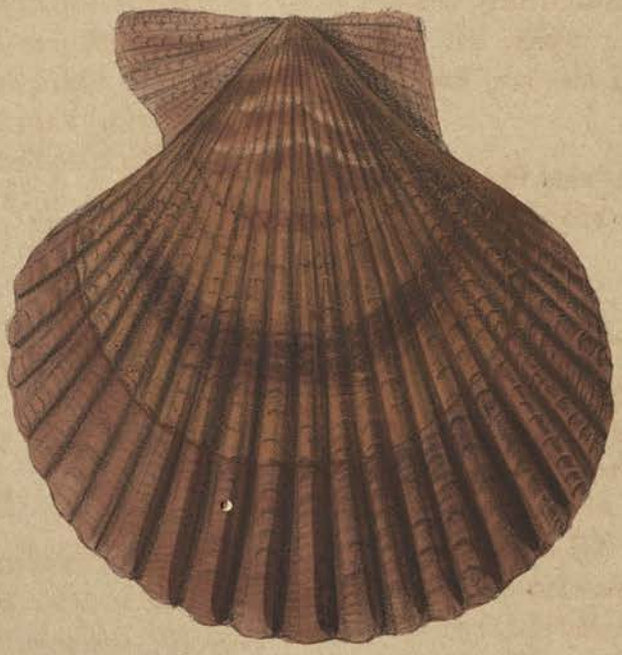
Hab. Philippine Islands; Cuming.

The left valve of this well-known species is peculiarly compressed at the umbo.

84.

85.

86.



87.

88. a.

88. b.

89.

Sowerby, del et lith.

F. Reeve imp.

PECTEN.

PLATE XXII.

Species 84. (Mus. Cuming.)

PECTEN ROSEO-PUNCTATUS. *Pect. testâ subtrigono-oblongâ, flabelliformi, æquilaterali, æquivalvi, valvis radiatim densè acutè liratis, costis tumidis subtuberculatis obsoletè radiatâ, undique sub lente minutissimè serratâ; albâ, valvâ sinistrâ pulcherrimè roseo-punctatâ; auriculis valdè inæqualibus.*

THE ROSE-DOTTED PECTEN. Shell somewhat triangularly oblong, fan-shaped, equilateral, equivalve, valves radiately densely sharply ridged, obsoletely rayed with five slightly tuberculated swollen ribs, beneath the lens very minutely serrated; white, left valve very beautifully dotted with rose; ears very unequal.

Hab. Moluccas.

A delicate marble-white shell, of somewhat rude growth, thickly dotted on the upper valve with bright rose.

Species 85. (Mus. Cuming.)

PECTEN FUNEBRIS. *Pect. testâ subtrigono-ovatâ, altiore quam longâ, subæquilaterali, æquivalvi, valvis costis quinque et viginti, undique irregulariter squamatis, radiatis; flavescente-nigricante, vel intensè fumeo-fuscâ, albo partim maculatâ; auriculis valdè inæqualibus.*

THE MOURNING PECTEN. Shell somewhat triangularly ovate, higher than long, nearly equilateral, equivalve, valves rayed with five-and-twenty ribs, regularly scaled throughout; yellowish-black or deep smoky-brown, partially mottled with white; ears very unequal.

Hab. Bathurst, Australia.

Beautifully characterized by its very neat and profuse arrangement of scales.

Species 86. (Mus. Cuming.)

PECTEN MINIACEUS. *Pect. testâ subtrigono-ovatâ, gibbosiusculâ, æquilaterali, æquivalvi, valvis costis octo et viginti obtusè serratis radiatis; intensè miniaceâ, pallidè sparsim marmoratâ; auriculis valdè inæqualibus.*

THE VERMILION PECTEN. Shell somewhat triangularly ovate, rather gibbous, equilateral, equivalve, valves rayed with eight-and-twenty obtusely serrated ribs; deep vermilion, sparingly faintly marbled; ears very unequal.

Hab. ——?

A very richly-coloured species, with the ribs close-set, rather appressed, and bluntly serrated.

Species 87. (Mus. Cuming.)

PECTEN USTULATUS. *Pect. testâ trigono-orbiculari, crassiusculâ, æquilaterali, æquivalvi, valvis costis tribus ad quatuor et viginti obtusè distanter serratis radiatis; ustulato-rufâ, versus umbones aurantiâ; auriculis subæqualibus, tenuisquamatis.*

THE SCORCHED PECTEN. Shell triangularly orbicular, rather thick, equilateral, equivalve, valves rayed with twenty-three to twenty-four obtusely distantly serrated ribs; burnt red, orange towards the umboes; ears nearly equal, finely scaled.

Hab. Australia.

A fine new species, of rather solid growth, simply characterized.

Species 88. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN DIEFFENBACHI. *Pect. testâ subtrigonâ, prope umbones utrinque peculiariter impresso-plicatâ, æquilaterali, subæquivalvi, valvis sæpè irregularibus, profusè radiatim lineatis et liratis, lineis lirisque undique angustè squamatis; rufescente-fuscâ aut violaceâ; auriculis valdè inæqualibus.*

DIEFFENBACH'S PECTEN. Shell subtriangular, peculiarly impressly plicated on both sides near the umboes, equilateral, nearly equivalve, valves often irregular, profusely radiately lineated and ridged, the lines and ridges everywhere narrowly squamate; reddish-brown or violet; ears very unequal.

GRAY, App. Dieffenbach's New Zealand.

Hab. New Zealand.

Distinguished among other characters by a peculiarly impressed flexuous growth beneath the front ear.

Species 89. (Mus. Cuming.)

PECTEN NUCLEUS. *Pect. testâ oblongo-orbiculari, crassi-*

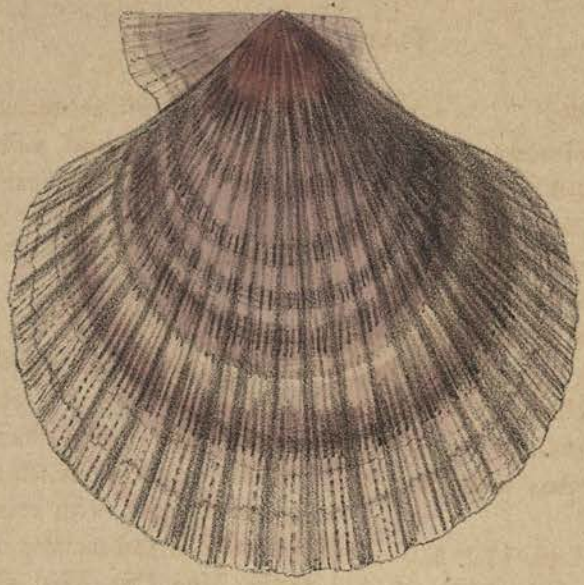
usculâ, gibbosâ, æquilaterali; subæquivalvi, viginti-costatâ, costis valvæ sinistræ fortibus, elevatis, angustis, dextræ latis, confertis, obtusis, valvâ sinistrâ cinereo-nigricante alboque marmoratâ, dextrâ albidâ; auriculis brevibus, subæqualibus.

THE KERNEL PECTEN. Shell oblong-orbicular, rather thick, gibbous, equilateral, nearly equivalve, twenty-ribbed, ribs of the left valve strong, elevated, and narrow, of the right valve broad, close-set, and obtuse, left valve marbled with ash-black and white, right valve whitish; ears short, nearly equal.

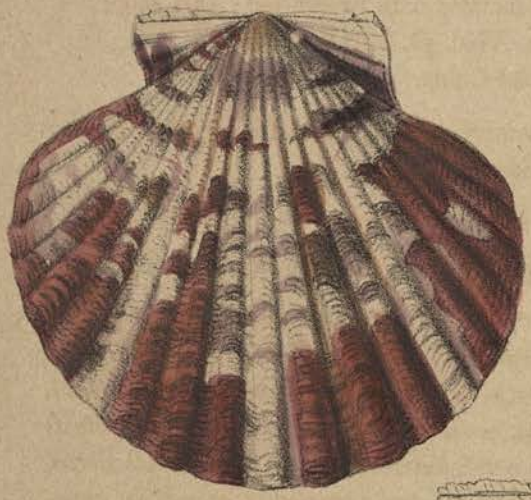
BORN, Mus. Vind. p. 107. pl. 7. f. 2.

Hab. Cumana, Venezuela.

This appears to be always distinguishable from *P. gibbosus*, though closely allied to it.

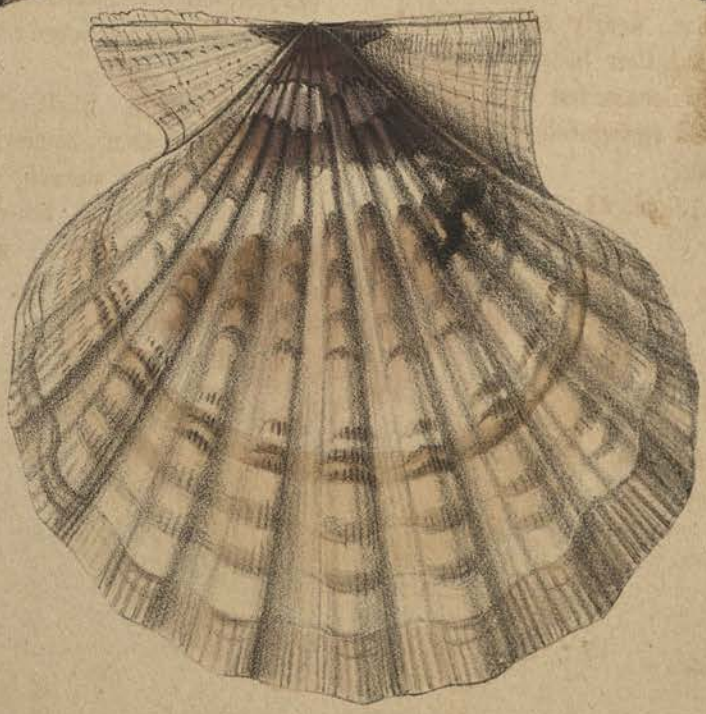


90.



91.

92.



93.

Sowerby, del et lith.

F. Reeve imp.

PECTEN.

PLATE XXIII.

Species 90. (Mus. Cuming.)

PECTEN RUBIDUS. *Pect. testâ suborbiculari, tenuiculâ, æquilaterali, inæquivalvi, valvâ dextrâ planiore, valvis ambabus densè irregulariter costatis, sulcatis, et liratis; albâ, liris subtiliter granulato-serratis, liris valvæ sinistræ eximiè roseis; auriculis valdè inæqualibus.*

THE RUDDY PECTEN. Shell somewhat orbicular, rather thin, equilateral, inequivalve, right valve the flatter, both valves densely irregularly ribbed, grooved, and ridged; white, ridges finely granulately serrated, ridges of the left valve delicate rose; ears very unequal.

HINDS, Zool. Voy. Sulphur, Moll. p. 61 pl. 17 f. 5.

Hab. Alashka, North-west America, at thirty-three fathoms; Hinds.

An extremely delicate and characteristic species, allied in some respects to *P. Islandicus*.

Species 91. (Mus. Cuming.)

PECTEN REEVEI. *Pect. testâ orbiculari, subæquilaterali, æquivalvi, viginti-costatâ, costis latiusculis, elevatis, confertis, lineis concentricis minutè densissimè decussatis; albâ, intensè carmineo et violascente tinctâ et variegatâ; auriculis æqualibus.*

REEVE'S PECTEN. Shell orbicular, nearly equilateral, equivalve, twenty-ribbed, ribs rather broad, raised, close-set, minutely very thickly decussated with concentric lines; white, stained and variegated with deep carmine and violet; ears equal.

ADAMS, Moll. Voy. Samarang, p. 73. pl. 21. f. 10 *a*, *b*.

Hab. China.

Peculiar in form and sculpture, and brilliantly variegated with crimson and violet.

Species 92. (Mus. Cuming.)

PECTEN SOLARIS. *Pect. testâ orbiculari, subflabelliformi, æquilaterali, subæquivalvi, ad umbones et prope marginem compressâ, valvis costis sexdecim ad octodecim radiatis, costis latiusculis, vix elevatis, ad latera plus minus obsoletis, striis concentricis ubique nitidè decussatis; albâ, fusco-rubro variè tinctâ et maculatâ; auriculis æqualibus.*

THE SUN PECTEN. Shell orbicular, somewhat fan-shaped, equilateral, nearly equivalve, compressed at the umboes and near the margin, valves rayed with sixteen to eighteen ribs, ribs rather broad, but slightly raised, more or less obsolete at the sides, neatly decussated everywhere with concentric striæ; white, variously stained and mottled with brown-red; ears equal.

BORN, Mus. Cæs. Vind. pl. 6. f. 4.

Hab. Macassar and China.

A peculiarly compressed species, variously painted but always with one idea of pattern.

Species 93. (Mus. Cuming.)

PECTEN SPECTRUM. *Pect. testâ orbiculari, subaltiore quam longâ, tenuiculâ, subirregulari, æquilaterali, æquivalvi, valvis lævigatis, aut sub lente minutissimè decussatâ, decemcostatis, costis plus minus obsoletis et irregularibus; albidâ, valvâ sinistrâ olivaceo-fusco pallidè tinctâ, prope umbonem maculatâ; auriculis grandibus, æqualibus.*

THE GHOST PECTEN. Shell orbicular, rather higher than long, rather thin, somewhat irregular, equilateral, equivalve, valves smooth, or, beneath the lens, very minutely decussated, ten-ribbed, ribs more or less obsolete and irregular; whitish, left valve faintly stained with olive-brown, spotted near the umbo; ears large, equal.

Hab. Australia.

A broad-spread thin species, of irregular growth, indistinctly coloured except near the umboes.

---

94. a.

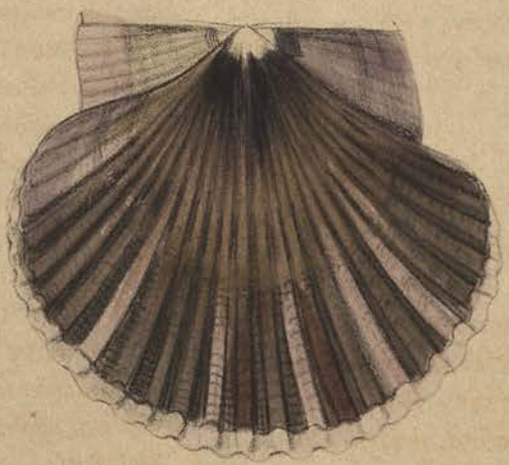
94. b.

95.

96. a.

97.

89.



96. b.

Sowerby, del. et lith.

F. Reeve, imp.

PECTEN.

PLATE XXIV.

Species 94. (Fig. 94 *a* and 95, Mus. Cuming.)

PECTEN CUNEATUS. *Pect. testâ ovatâ, altiore quam longâ, æquilaterali, æquivalvi, valvis versus marginem compressis, densissimè radiatim liratis et striatis, liris plus minus obtusè serratis; colore variâ, interdum rufo-aurantiâ nigro sparsim variegatâ, interdum nigricante-fuscâ luteo variegatâ; auriculis valdè inæqualibus.*

THE WEDGE-LIKE PECTEN. Shell ovate, higher than long, equilateral, equivalve, valves compressed towards the margin, very thickly radiately ridged and striated, ridges more or less obtusely serrated; colour various, sometimes reddish-orange variegated sparingly with black, sometimes blackish-brown variegated with yellow; ears very unequal.

Hab. Moluccas.

It should be observed that the numbers of this characteristic new species in the plate are No. 94 *a* and 95. The Fig. 94 *b* refers to the following species.

Species 95. (Fig. 94 *b*, Mus. Cuming.)

PECTEN ALBO-LINEATUS. *Pect. testâ subtrigono-ovali, compressâ, æquilaterali, æquivalvi, quinque et viginti-costatâ, costis angustis, elevatis, serratis, interstitiis peculiariter excavatis; albidâ, costis nigro-olivaceis, quinque radiatim pallidioribus, maculis parvis opaco-albis undique peculiariter aspersis; auriculis valdè inæqualibus.*

THE WHITE-LINED PECTEN. Shell somewhat triangularly ovate, compressed, equilateral, equivalve, twenty-five-ribbed, ribs narrow, raised, serrated, interstices peculiarly excavated; whitish, ribs black-olive, five radiately paler, peculiarly sprinkled throughout with small opake-white spots; ears very unequal.

SOWERBY, Pro. Zool. Soc. 1842.

Hab. Island of Guimaras, Philippines; Cuming.

The ribs of this species are particularly narrow and raised, dark-coloured, while the interstices are light, and slashed about with opake-white marks.

Species 96. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN PYXIDATUS. *Pect. testâ semiglobosâ, æquilaterali, inæquivalvi, quinque et viginti-costatâ, valvâ sinistrâ planâ vel subconcavâ, costis subangustis, angulatis, valvâ dextrâ ventricosissimâ, costis latiusculis, convexis, perpaucis medio versus marginem sulcatis; valvâ sinistrâ cinereo-nigrâ, albo sparsim maculatâ, dextrâ albâ vel carneo-cinerascente; auriculis æqualibus.*

THE BOX-LIKE PECTEN. Shell semiglobose, equilateral, inequivalve, twenty-five-ribbed, left valve flat or subconcave, ribs rather narrow, angled, right valve extremely ventricose, ribs rather broad, convex, a few grooved down the middle towards the margin; left valve ash-black, blotched here and there with white, right valve white, sometimes tinged with flesh-ash; ears equal.

BORN, Mus. Cæs. Vind. pl. 6. f. 5 and 6.

Ostrea sulcata, Gmelin.

Hab. China, Australia, Philippine Islands.

Distinguished among other characters by a peculiar livid flesh-ash hue.

Species 97. (Mus. Cuming.)

PECTEN FABRICII. *Pect. testâ ovatâ, altiore quam longâ, compresso-convexâ, subæquilaterali, æquivalvi, valvis liris valdè irregularibus densè radiatis, sulcis peculiariter granulato-reticulatis; valvâ sinistrâ pallidè roseo et aurantio tinctâ et concentricè fasciatâ, dextrâ albâ; auriculis subæqualibus.*

FABRICIUS' PECTEN. Shell ovate, higher than long, compressly convex, nearly equilateral, equivalve, valves thickly rayed with very irregular ridges, the grooves between which are peculiarly grain-reticulated; left valve tinged and concentrically banded with light rose and orange, right valve white; ears nearly equal.

PHILIPPI, Abbild. und Besch. Conch. Pecten, p. 3. pl. 1. f. 5.

Hab. Greenland.

The ridges are very irregular in width, and the grooves, which are sharply cut, are curiously grain-reticulated. Some of the smaller ridges are squamately serrated near the margin.

Species 98. (Mus. Cuming.)

PECTEN SANGUINOLENTUS. *Pect. testâ subtrigonâ, altiore quam longâ, æquilaterali, subæquivalvi, valvis convexo-tumidis, undique peculiariter muricato-squamosis, costis maximis novem radiatis, interstitiis profundè excavatis; albâ, intensè carmineo tinctâ et maculatâ, præcipuè ad costas; auriculis inæqualibus.*

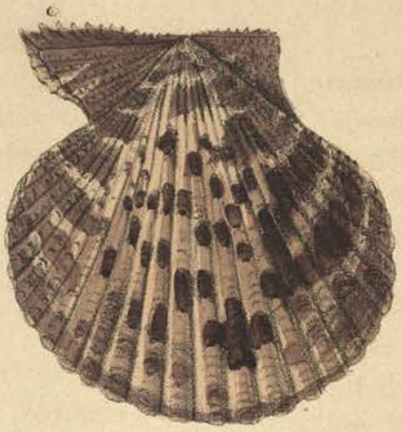
THE BLOOD-STAINED PECTEN. Shell somewhat triangular, higher than long, equilateral, nearly equivalve, valves convexly tumid, peculiarly prickly squamate throughout, rayed with nine very large ribs, interstices deeply excavated; white, stained and spotted, chiefly on the ribs, with rich carmine; ears unequal.

Ostrea sanguinolenta, Gmelin, Syst. Nat. p. 3322.

Pecten sanguinolentus, Sowerby.

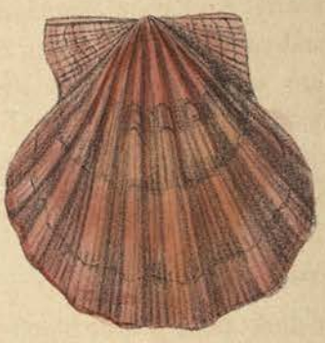
Hab. Red Sea.

This very rare and characteristic species is of a peculiar tumid triangular form, curiously prickly-scaled throughout.



99.

100.



101.

102. a.

103. a.

103. b.

102. b.

Sowerby del et lith.

F. Reeve, imp.

PECTEN.

PLATE XXV.

Species 99. (Mus. Cuming.)

PECTEN CRISTULARIS. *Pect. testâ orbiculari, compressiusculâ, subæquilaterali, æquivalvi, valvis costis quinque et viginti, plano-convexis, anticis muricato-squamosis, radiatis; albidâ, intensè carneo-rufo maculatâ et tenuissimè concentricè lineatâ; auriculis inæqualibus, squamis prominentibus cristatis.*

THE CRESTED PECTEN. Shell orbicular, rather compressed, nearly equilateral, equivalve, valves rayed with five-and-twenty flatly convex ribs, of which the anterior are prickly-scaled; whitish, blotched and very finely concentrically lineated with very dark flesh-red; ears unequal, crested with prominent scales.

ADAMS and REEVE, Zool. Voy. Samarang, Mollusca, p. 74. pl. 21. f. 15.

Hab. Eastern Seas.

Of a peculiar dark flesh-red or blood-brown colouring, gently prickly-scaled on the anterior side, and prominently scaled at the upper edge of the anterior ear.

Species 100. (Mus. Cuming.)

PECTEN MOLLITUS. *Pect. testâ suborbiculari, paululum altiore quam longâ, compressâ, tenui, semipellucidâ, æquilaterali, æquivalvi, radiatim undique densè subtilissimè serrato-striatâ; albidâ aut lutescente, pellucido-roseo concentricè tinctâ, punctis numerosis fuscescentibus aspersâ; auriculis peculiariter inæqualibus.*

THE DELICATE PECTEN. Shell nearly orbicular, a little higher than long, compressed, thin, semitransparent, equilateral, equivalve, radiately densely very finely serrately striated throughout; whitish or yellowish, concentrically stained with transparent rose, and sprinkled throughout with light brownish dots; ears peculiarly unequal.

Hab. Japan.

This, as will be seen by the above description, is an extremely characteristic species; delicate in its substance, sculpture, and colouring, and quite distinct from any hitherto known.

Species 101. (Mus. Cuming.)

PECTEN MILES. *Pect. testâ orbiculari, æquilaterali, æquivalvi, valvis rudè et irregulariter decemcostatis, costis alternatim majoribus, costis interstitiisque undique tenuiliratis; intus extusque miniaceo-rufâ, immaculatâ; auriculis æqualibus.*

THE SOLDIER PECTEN. Shell orbicular, equilateral, equivalve, valves rudely and irregularly ten-ribbed, ribs alternately larger, ribs and interstices finely ridged throughout; vermilion-red within and without, unspotted; ears equal.

Hab. Java.

Conspicuously ribbed, but the ribs are developed with great irregularity; now broad or narrow, now single or duplicate.

Species 102. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN VARIUS. *Pect. testâ ovatâ, altiore quam longâ, æquilaterali, subæquivalvi, valvis costis triginta ad quinque et triginta acutè radiatis, costis plus minus squamatis, squamis subdistantibus, interdum promiscuè porrectis; colore vario; auriculis valdè inæqualibus, squamatis.*

THE MANY-COLOURED PECTEN. Shell ovate, higher than long, equilateral, nearly equivalve, valves sharply rayed with thirty to five-and-thirty ribs, ribs narrow, more or less squamate, scales rather distant, sometimes promiscuously stretched out; colour various; ears very unequal, squamate.

Ostrea varia, Linnæus, Syst. Nat. (12th edit.) p. 1146.

Varieties—*Ostrea muricata, punctata, ochroleuca, mustelina, flammea, incarnata*, and *versicolor*, Gmelin.

Hab. Seas of Europe.

Extremely variable in colour, and also in the number of ribs, but always distinguished by a constant peculiarity of form and sculpture.

Species 103. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN AUSTRALIS. *Pect. testâ orbiculari, interdum subventricosâ, vix æquilaterali, æquivalvi, valvis costis quatuor et viginti radiatis, costis peculiariter trifariam divisis et densè tenuiserratis; nigricante-violaceâ vel aurantio-roseâ, immaculatâ; auriculis inæqualibus.*

THE AUSTRALIAN PECTEN. Shell orbicular, sometimes rather ventricose, scarcely equilateral, equivalve, valves rayed with four-and-twenty ribs, which are peculiarly three-divided and densely finely serrated; blackish-violet or orange-rose, unspotted; ears unequal.

SOWERBY, Thesaurus Conch. vol. i. p. 76. pl. 19. f. 210 and 220.

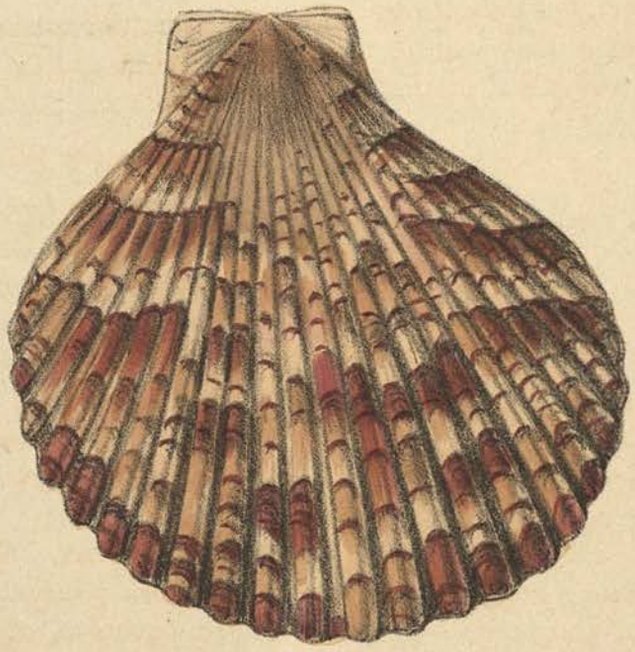
Hab. Mouth of the Swan River, Australia.

The tripartite division of the ribs is a very striking peculiarity in this species.

104.

105.

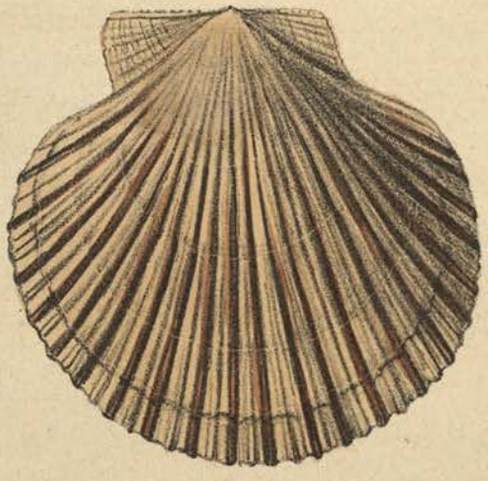
106.



107.

108.

109.



110.

Sowerby, del. et lith.

F. Reeve, imp.

PECTEN.

PLATE XXVI.

Species 104. (Mus. Cuming.)

PECTEN MIRIFICUS. *Pect. testâ trigono-orbiculari, flabelliformi, tenuiculâ, æquilaterali, inæquivalvi, valvâ sinistrâ concavo-planâ, costis quinque distantibus grandi-squamatis radiatis, costâ esquamatâ prope marginem intercurrente, valvâ dextrâ convexâ, decemcostatâ, costis ad summitatem angustis et obtusè muricatis; vividè carmineâ, aureo-luteo lentiginosâ, ad umbones pallidiore; auriculis subæqualibus.*

THE STRANGE PECTEN. Shell triangularly orbicular, fan-shaped, rather thin, equilateral, inæquivalve, left valve concavely flattened, rayed with five distant large-scaled ribs, with a scaleless rib between them near the margin, right valve convex, ten-ribbed, ribs narrow and obtusely prickly along the summit; bright carmine, freckled with golden-yellow, paler at the umboes; ears nearly equal.

Hab. Amboyna.

A very singular species, remarkably distinct from any hitherto described.

Species 105. (Mus. Cuming.)

PECTEN AURANTIACUS. *Pect. testâ subtrigono-orbiculari, paululum altiore quam longâ, valdè compressâ, æquilaterali, subæquivalvi, valvâ sinistrâ planatâ, dextrâ lævitèr convexâ, ambabus undique tenuiliratis et densè minutissimè squamatis, costis quatuordecim rotundatis, interstitiis angustis, profundis, radiatis; pallidè roseo, luteo, et vividè aurantio pulcherrimè marmoratâ; auriculis subæqualibus.*

THE ORANGE-COLOURED PECTEN. Shell somewhat triangularly orbicular, a little higher than long, very compressed, equilateral, nearly equivalve, left valve flat, right valve slightly convex, both everywhere finely ridged and densely very minutely scaled, and rayed with fourteen rounded ribs, the interstices between which are narrow and deep; very beautifully marbled with pale rose, yellow, and bright orange; ears nearly equal.

ADAMS and REEVE, Zool. Voy. Samarang, Mollusca, p. 74. pl. 21. f. 12.

Hab. China Sea.

Richly coloured and very beautifully minutely sculptured.

Species 106. (Mus. Cuming.)

PECTEN TINCTUS. *Pect. testâ trigono-ovatâ, altiore quam longâ, vix æquilaterali, æquivalvi, valvis undique radiatim densè fortiter liratis, liris subirregularibus, ut plurimum binis, serratis; albidâ, aurantio-minio tinctâ et variegatâ; auriculis valdè inæqualibus.*

THE TINGED PECTEN. Shell triangularly ovate, higher than long, hardly equilateral, equivalve, valves everywhere radiately densely strongly ridged, ridges rather irregular, for the most part in pairs, serrated; whitish, stained and variegated with orange-vermilion; ears very unequal.

Hab. ——?

In sculpture this species approaches *P. asperulatus*, but it differs in form, and the ears are different.

Species 107. (Mus. Cuming.)

PECTEN SUPERBUS. *Pect. testâ obliquè flabelliformi, ovatâ, crassiusculâ, peculiariter concavo-compressâ, inæquilaterali, æquivalvi, valvis costis rotundatis angustis duabus et viginti radiatis, costis lævibus, vel sub lente minutissimè concentricè striatis, interstitiis profundè excavatis, marginibus lateralibus creberrimè tenuiliratis; albidâ aut lutescente, sanguineo-rufo promiscuè conspurcatâ; auriculis parvis, lævibus, subæqualibus.*

THE SUPERB PECTEN. Shell obliquely fan-shaped, ovate, rather thick, peculiarly concavely compressed, inequilateral, equivalve, valves rayed with two-and-twenty narrow rounded ribs, ribs smooth, or, beneath the lens, very minutely concentrically striated, interstices deeply excavated, lateral margins very closely finely ridged; whitish or yellowish, promiscuously smeared with blood-red; ears small, rather smooth, nearly equal.

SOWERBY, Thesaurus Conch. vol. i. p. 62. pl. 12. f. 11.

Hab. ——?

Of a singularly distinct typical form, and characteristic also in respect of colour.

Fig. 108. (Mus. Cuming.)

The shell here figured, from the West Indies, proves on examination to be a variety of *P. exasperatus* from the same locality.

Species 109. (Mus. Cuming.)

PECTEN ASPERULATUS. *Pect. testâ subtrigono-orbiculari, rudi, irregulari, æquilaterali, subæquivalvi, radiatim densè fortiter liratis, liris valdè irregularibus, ut plurimum binis, muricatim squamato-serratis; albidâ aut lutescente, prope marginem violaceo tinctâ, ad umbones miniaceâ; auriculis inæqualibus, anticis grandibus subflexuosis.*

THE ROUGHENED HELIX. Shell somewhat triangularly orbicular, rude, irregular, equilateral, nearly equivalve, radiately densely strongly ridged, ridges very irregular, for the most part in pairs, prickly scale-serrated; whitish or yellowish, tinged with violet near the margin, vermilion-red at the umboes; ears unequal, front ears large, rather flexuous.

ADAMS and REEVE, Zool. Voy. Samarang, Mollusca, p. 74. pl. 21. f. 13.

Hab. Corean Archipelago.

Of characteristic form and sculpture, but rude and irregular in growth.

Species 110. (Mus. Cuming.)

PECTEN PATAGONICUS. *Pect. testâ orbiculari, subventricosâ, æquilaterali, subæquivalvi, valvis costis numerosis radiatis, costis valvæ sinistræ subangustis, versus marginem trifariam divisis, interstitiis sub lente minutissimè concentricè striatis, valvæ dextræ latioribus, obtusis; albâ, costis valvæ sinistræ alternatim fulvo-aurantiis.*

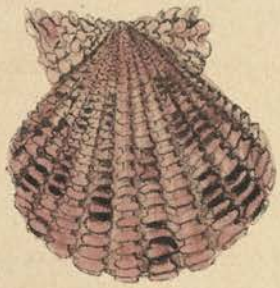
THE PATAGONIAN PECTEN. Shell orbicular, rather ventricose, equilateral, nearly equivalve, valves rayed with numerous ribs, ribs of the left valve rather narrow, three-divided towards the margin, interstices, beneath the lens, very minutely concentrically striated, ribs of the right valve broader, obtuse; white, ribs of the left valve alternately fulvous-orange.

KING, Zoological Journal?

Hab. Patagonia and Straits of Magalhaens.

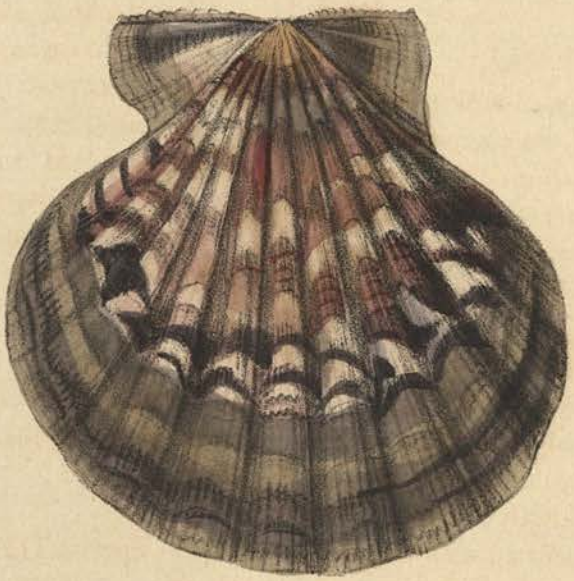
Elegantly characterized by the alternate rayed colouring of the ribs.

111.



112.

113.



114. a.

115. a.

115. b.

114. b.

Sowerby del et lith.

F. Reeve imp.

PECTEN.

PLATE XXVII.

Species 111. (Mus. Cuming.)

PECTEN GEMMULATUS. *Pect. testâ subtrigono-orbiculari, tenui, compressâ, æquilaterali, subæquivalvi, radiatim densè liratâ, liris hic illic majoribus, undique pulcherrimè minutè muricato-serratis; albidâ, carneo-roseo tinctâ; auriculis valdè inæqualibus.*

THE FINELY-BEADED PECTEN. Shell somewhat triangularly orbicular, thin, compressed, equilateral, nearly equivalve, radiately densely ridged, ridges here and there larger, very beautifully minutely prickly serrated throughout; whitish, stained with flesh-rose; ears very unequal.

Hab. New Zealand.

A thin rather fragile species, very delicately but densely prickly-serrated throughout.

Species 112. (Mus. Cuming.)

PECTEN SPECIOSUS. *Pect. testâ trigono-orbiculari, compressâ, æquilaterali, subæquivalvi, valvis costis duodecim ad tredecim radiatis, costis latiusculis subconfertis, squamis amplis pulcherrimè fornicatis undique densè ornatis; albâ, valvâ sinistrâ nigricante-fusco roseoque tinctâ et tessellatâ, dextrâ pallidiore; auriculis inæqualibus, imbricato-squamatis.*

THE BEAUTIFUL PECTEN. Shell triangularly orbicular, compressed, equilateral, nearly equivalve, valves rayed with twelve to thirteen ribs, which are somewhat broad and rather close-set, densely ornamented throughout with large very beautifully vaulted scales; white, left valve stained and tessellated with blackish-brown and rose, right valve paler; ears unequal, imbricately-scaled.

Hab. Philippine Islands.

This very beautiful little species is furbelowed throughout with rather broadly vaulted scales, and most delicately coloured.

Species 113. (Mus. Cuming.)

PECTEN NASANS. *Pect. testâ ovatâ, tenui, pellucidâ, aureo-vitreâ, sub lente minutissimè concentricè striatâ, æquilaterali, æquivalvi, valvis costis obtusis, subobsoletis, irregulariter radiatis; auriculis subinæqualibus.*

THE GOLDEN PECTEN. Shell ovate, thin, transparent, golden-glassy, beneath the lens very minutely concentrically striated, equilateral, equivalve, valves irregularly rayed with rather obsolete obtuse ribs; ears rather unequal.

PHILIPPI, (Mus. Cuming.)

Hab. Straits of Magalhaens.

A delicately transparent golden glossy shell, with somewhat the aspect of a *Terebratula*.

Species 114. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN VEXILLUM. *Pect. testâ orbiculari, ad latera subimpressâ, crassâ, æquilaterali, subæquivalvi, valvis undique tenuiliratis et densè minutissimè serratis, costis grandibus octo radiatis; valvâ sinistrâ carmineâ vel cinereo-griseâ, albo promiscuè maculatâ, valvâ dextrâ albidâ, carmineo punctatâ; auriculis æqualibus.*

THE FLAG PECTEN. Shell orbicular, rather impressed at the sides, thick, equilateral, nearly equivalve, valves finely ridged and densely very minutely serrated throughout, rayed with eight large ribs; left valve carmine or ash-grey, promiscuously spotted with white, left valve whitish, dotted with carmine; ears equal.

Hab. ——?

A beautiful and very characteristic species, variously painted, although the painting above described is the prevailing colour.

Species 115. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN PICA. *Pect. testâ orbiculari, compressâ, æquilaterali, subæquivalvi, valvis costis unâ et viginti angustis radiatis, interstitiis excavatis; albâ, griseo et fusco-nigricante variegatâ; auriculis grandibus, subæqualibus.*

THE MAGPIE PECTEN. Shell orbicular, compressed, equilateral, nearly equivalve, valves rayed with twenty-one narrow ribs, interstices excavated; white, variegated with grey and brown-black; ears large, nearly equal.

Hab. New Zealand.

A new and well-marked species, pied with brown-black and grey.

116.

117.

118.

119.

120.

121.

122.a.

123.

124.

122.b.

Sowerby del. et lith.

E.Reeve imp.

PECTEN.

PLATE XXVIII.

Species 116. (Mus. Cuming.)

PECTEN PICTUS. *Pect. testâ trigono-orbiculari, compresso-convexâ, æquilaterali, subæquivalvi, valvis costis tredecim radiatis, costis angulatis, ad latera et interstitiis minutè crenulatis, costarum partibus albis valvæ sinistræ irregulariter corrugato-crenatis; albâ, punctato-roseo latè variegatâ; auriculis subæqualibus.*

THE PAINTED PECTEN. Shell triangularly orbicular, compressly convex, equilateral, nearly equivalve, valves rayed with thirteen ribs, which are angled and minutely crenulated at the sides and in the interstices, white parts of the ribs of the left valve irregularly wrinkle-crenated; white, broadly variegated with dotted rose; ears nearly equal.

SOWERBY, Thesaurus Conch. vol. i. p. 62. pl. 20. f. 233.

Hab. Isle of Baicus, Philippines; Cuming.

It is a singular peculiarity in this shell, that the uncoloured parts of the ribs of the left valve are irregularly wrinkled-crenated, but not the coloured.

Species 117. (Mus. Cuming.)

PECTEN MADREPORARUM. *Pect. testâ obliquè ovatâ, altiore quam longâ, subirregulari, inæquilaterali, inæquivalvi, valvâ sinistrâ plano-convexâ, dextrâ convexiore, ambabus densè minutè rudè crenulato-striatis; albâ, valvâ sinistrâ nigro-fusco prope umbonem punctatâ; umbonibus valdè æqualibus.*

THE MADREPORE PECTEN. Shell obliquely ovate, higher than long, rather irregular, inequilateral, inequivalve, left valve flatly convex, right valve more convex, both valves densely minutely rudely crenulately striated; white, left valve dotted near the umbo with black-brown; umboes very unequal.

PETIT, Sowerby, Thesaurus Conch. vol. i. p. 68. pl. 14. f. 68.

Hab. Java (in masses of madrepore).

A light thin white shell, dotted with black on the left valve towards the umboes.

Species 118. (Mus. Cuming.)

PECTEN SPINIFERUS. *Pect. testâ trigono-orbiculari, compressâ, subæquilaterali, inæquivalvi, valvâ sinistrâ leviter convexâ, costis novem latis, rotundatis, pulcherrimè squamatis radiatâ, squamis eximiè fornicatis et fimbriatis, costis extremis lateralibus angustis spinoso-squamatis, costarum interstitiis subtiliter liratis, valvâ dextrâ novem-costatâ et liratâ, squamis parvioribus plus numerosis, minus fimbriatis, costis extremis spinoso-squamatis; semipellucido-albâ, roseo hic illic sparsim tinctâ; auriculis valdè inæqualibus, valvæ dextræ ad marginem spinoso-squamatis.*

THE SPINED PECTEN. Shell triangularly orbicular, compressed, nearly equilateral, inequivalve, left valve slightly convex, rayed with nine broad, rounded, very beautifully scaled ribs, scales delicately vaulted and fringed, outer lateral ribs narrow, spinosely-scaled, interstices between the ribs finely ridged, right valve also nine-ribbed and ridged, with the scales smaller, more numerous, and less fringed, outer ribs spinosely squamate; semitransparent-white, sparingly tinged here and there with pink; ears very unequal, ear of the right valve spinosely scaled along the edge.

SOWERBY, Pro. Zool. Soc. 1835, p. 110.

Pecten pulcherrimus, Gray.

Hab. Lord Hood's Island, Pacific Ocean (on the reefs in coral sand); Cuming.

This very beautiful species has very much the general aspect of *P. speciosus*, described in the preceding Plate, but, on examination, it will be found to differ in its detail of sculpture throughout.

Species 119. (Mus. Cuming.)

PECTEN ARTHRITICUS. *Pect. testâ trigono-orbiculari, æquilaterali, inæquivalvi, valvâ sinistrâ convexâ, et irregulariter rudè tumulosâ, valvâ dextrâ minus convexâ, plus regulari, ambabus decemcostatis, costis hic illic nodatis, undique tenuiliratis, lirarum interstitiis subtiliter crenulatis; purpureo-griseâ, prope umbonem albâ; auriculis valdè inæqualibus.*

THE GOUTY PECTEN. Shell triangularly orbicular, equilateral, inequivalve, left valve convex and irregularly rudely tumulous, right valve less convex and more regular, both valves ten-ribbed, ribs here and there noduled, finely ridged throughout, interstices between the ridges finely crenulated; purple-grey, white near the umboes; ears very unequal.

Hab. —— ?

Of singularly rude growth, though distinguished by a characteristic plan of sculpture.

Species 120. (Mus. Cuming.)

PECTEN TRIRADIATUS. *Pect. testâ suborbiculari, compresso-convexâ, æquilaterali, æquivalvi, valvis costis viginti rotundatis squamato-crenatis radiatis, interstitiis excavatis; pallidè carneo-variegatâ, radiis tribus centralibus albis notatâ; auriculis valdè inæqualibus.*

THE THREE-RAYED PECTEN. Shell nearly orbicular, compressly convex, equilateral, equivalve, valves rayed with twenty rounded, squamately crenulated ribs, the interstices between which are excavated; variegated with pale flesh-colour, marked with three central white rays; ears very unequal.

Hab. —— ?

A distinct and well-marked species, though of simple character.

Species 121. (Mus. Cuming.)

PECTEN ERUBESCENS. *Pect. testâ orbiculari, subæquilaterali, inæquivalvi, valvâ sinistrâ subplanâ, dextrâ convexâ, ambabus costis viginti angustis obsoletè crenatis radiatis, interstitiis subprofundis; albâ, incarnato-roseo pallidè tinctâ, et prope umbones sparsim punctatâ, valvâ dextrâ pallidiore; auriculis subæqualibus.*

THE BLUSHING PECTEN. Shell orbicular, nearly equilateral, inequivalve, left valve rather flat, right valve convex, both valves rayed with twenty narrow obsoletely crenated ribs, the interstices between which are rather deep; white, faintly tinged with flesh-pink, sparingly spotted near the umboes, right valve the paler; ears nearly equal.

Hab. —— ?

Coloured with a delicate blush tinge of flesh-pink.

Species 122. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN TIGRINUS. *Pect. testâ trigono-orbiculari, æquilaterali, æquivalvi, valvis, sub lente, minutissimè corrugato-decussatis, et radiatim liratis, nunc lævibus, nunc quinquecostatis, costis subnodosis; purpureo-rufâ, albo sparsim undato-maculatâ; auriculis valdè inæqualibus.*

THE TIGER-MARKED PECTEN. Shell triangularly orbicular, equilateral, equivalve, very minutely wrinkle-decussated beneath the lens, and radiately ridged, now smooth, now five-ribbed, ribs slightly noduled; purple-red, sparingly wave-blotched with white; ears very unequal.

MULLER, Zoologia Danica, pl. 60. f. 6, 7, 8.
Ostrea tigrina, Gmelin.
Pecten lævis and *obsoletus*, Pennant.
Pecten domesticus, Chemnitz.
Pecten Armoricanus, Chenu.

Hab. Celtic and Northern Europe (in twelve to sixty fathoms); Forbes and Hanley.

Extremely variable in sculpture, but not differing materially in colour.

Species 123. (Mus. Cuming.)

PECTEN FULVICOSTATUS. *Pect. testâ subobliquè trigono-ovatâ, altiore quam longâ, tenui, compressâ, inæquilaterali, subæquivalvi, valvis decemcostatis, undique tenuiliratis et, sub lente, minutissimè granulatis; pellucido-albâ, costis pallidè fulvis, valvâ sinistrâ punctis perpaucis carmineis prope umbonem pictâ; auriculis valdè inæqualibus.*

THE YELLOW-RIBBED PECTEN. Shell rather obliquely triangularly ovate, higher than long, thin, compressed, inequilateral, nearly equivalve, valves ten-ribbed, finely edged throughout, and, beneath the lens, very minutely granulated; transparent-white, ribs pale yellow, left valve painted near the umbo with a few carmine dots; ears very unequal.

ADAMS and REEVE, Zool. Voy. Samarang, Mollusca, p. 74. pl. 21. f. 11.

Hab. Sooloo Archipelago.

A thin semitransparent shell, rayed with ten conspicuous yellow ribs, while the left valve is painted with a few characteristic lake-red dots.

Species 124. (Mus. Cuming.)

PECTEN LIMATULA. *Pect. testâ ovatâ, altiore quam longâ, subcompressâ, tenui, semipellucidâ, æquilaterali, vix æquivalvi, undique densè liratis, liris squamis parvis subdistantibus nitidè asperatis; albâ, valvâ sinistrâ purpureo-lacco pallidissimè, et etiam intensè, sparsim maculatâ; auriculis valdè inæqualibus.*

THE SMALL FILE PECTEN. Shell ovate, higher than long, rather compressed, thin, semitransparent, equilateral, scarcely equivalve, everywhere densely ridged, the ridges being neatly roughened by small rather distant scales; white, left valve very faintly and also very deeply blotched with purple-lake; ears very unequal.

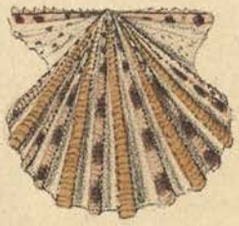
Hab. —— ?

Very delicately and elaborately sculptured with small suberect scales on close-set ridges.

125.

126.

127.



128.

129. a.

129. b.

130.

131.

132.

133.

Sowerby del et lith.

F. Reeve, imp.

PECTEN.

PLATE XXIX.

Species 125. (Mus. Cuming.)

PECTEN SENTIS. *Pect. testâ subtrigono-ovatâ, altiore quam longâ, æquivalvi, subæquilaterali, profusè tenuiliratâ, liris alternatim majoribus, densè aculeato-squamatis, intensè miniatâ, maculis perpaucis albis ad latera; auriculis valdè inæqualibus, anticis amplis, subflexuosis, posticis vix nullis.*

THE BRAMBLE PECTEN. Shell somewhat triangularly ovate, higher than long, equivalve, nearly equilateral, profusely finely ridged, ridges alternately larger, densely prickly-scaled, deep vermilion, with a very few whitish spots at the sides; ears very unequal, the anterior large and flexuous, the posterior almost none.

Hab. ——?

A delicate finely prickly-scaled species, of a deep vermilion colour, with the ears very unequal.

Species 126. (Mus. Cuming.)

PECTEN RUSSATUS. *Pect. testâ subtrigono-orbiculari, æquilaterali, æquivalvi, valvis costis ad viginti angustis radiatis, interstitiis subexcavatis, ad latera costarum serrulatis; carneâ, rufo-fusco lentiginosâ; auriculis valdè inæqualibus.*

THE FLESH-TINGED PECTEN. Shell somewhat triangularly orbicular, equilateral, equivalve, valves rayed with about twenty narrow ribs, interstices rather hollow, serrulated at the sides of the ribs; flesh-colour, freckled with red-brown; ears very unequal.

Hab. Sandwich Islands.

A small sharply-ribbed freckled shell.

Fig. 127. (Mus. Cuming.)

This shell proves to be a small yellow variety of *P. exasperatus*, described at Pl. II.

Species 128. (Mus. Saul.)

PECTEN SPECTABILIS. *Pect. testâ ovatâ, flabelliformi, æquilaterali, inæquivalvi, valvâ sinistrâ planatâ, costis duodecim subirregularibus, elevatis, supernè rotundatis et concentricè annulato-liratis, radiatâ; valvâ dextrâ convexâ, costis latioribus annulato-liratis, interstitiis in valvis ambabus tenuiscabrosis; albâ, costis alternatim nigricante et minio tessellatis; auriculis grandibus, subæqualibus, rufipunctatis.*

THE REMARKABLE PECTEN. Shell ovate, fan-shaped, equilateral, inequivalve, left valve flattened, rayed with twelve somewhat irregular ribs, rounded and concentrically ring-ridged at the upper part; right valve convex, ribs broader, ring-ridged, interstices in both valves finely scabrous; white, ribs alternately tessellated blackish and vermilion; ears large, nearly equal, red-dotted.

Hab. ——?

A very beautifully sculptured and peculiarly coloured species, remarkably distinct from any hitherto described.

Species 129. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN CRETATUS. *Pect. testâ ovatâ, paululum altiore quam longâ, tenui, pellucidâ, subinæquilaterali, inæquivalvi, sinistrâ convexâ, dextrâ planiore, ambabus undique pulcherrimè granulato-serratis, costis tenuibus angustis duabus et viginti radiatis; vitreo-albâ, valvâ sinistrâ carneo-roseo maculatâ, radiis aut strigis peculiariter opaco-albis ornatâ; auriculis parviusculis, subæqualibus.*

THE CHALKY PECTEN. Shell ovate, a little higher than long, thin, transparent, rather inequilateral, inequivalve, left valve convex, right valve flatter, both valves very beautifully granulately serrated throughout, and rayed with two-and-twenty thin narrow ribs; glassy white, left valve spotted with flesh-rose, and ornamented with peculiarly opake-white rays and streaks; ears rather small, nearly equal.

Hab. ——?

Most elaborately sculptured though of delicate glassy texture, marked with flesh-rose spots and opake chalk-white rays and streaks.

Species 130. (Mus. Saul.)

PECTEN HISTRIONICUS. *Pect. testâ ovatâ, flabelliformi, æquilaterali, inæquivalvi, valvâ sinistrâ planâ, dextrâ convexiore, ambabus costis duodecim lævibus subobtusis radiatis, costis lateralibus serratis; albâ, valvâ sinistrâ maculis nigris et roseis irregulariter tessellatis et roseo-punctatis, valvâ dextrâ vix carneo maculatâ; auriculis inæqualibus.*

THE HARLEQUIN PECTEN. Shell ovate, fan-shaped, equilateral, inequivalve, left valve flat, right valve more convex, both valves rayed with twelve smooth rather obtuse ribs, lateral ribs serrated; white, left valve irregularly tessellated with black and rose spots, and rose-dotted, right valve faintly flesh-dotted; ears equal.

GMELIN, Syst. Nat. p. 3326.

Hab. Eastern Seas.

The tessellated painting varies considerably in this well-known species, in being larger or smaller in pattern, but it is always of the same colour.

Species 131. (Mus. Cuming.)

PECTEN CUNEOLUS. *Pect. testâ obliquè flabelliformi, compressâ, inæquilaterali, inæquivalvi, valvis, sinistrâ planiusculâ, dextrâ convexiore, costis quatuordecim latis liratis subnodosis radiatis; fulvâ, albo sparsim notatâ auriculis valdè inæqualibus, posticis vix nullis.*

THE LITTLE WEDGE PECTEN. Shell obliquely fan-shaped, compressed, inequilateral, inequivalve, valves, the left rather flattened, the right more convex, rayed with fourteen broad ridged subnodose ribs; fulvous, sparingly marked with white; ears very unequal, the posterior almost wanting.

Hab. ——?

Characterized distinctly by its compressly oblique nodulous form.

Species 132. (Mus. Cuming.)

PECTEN ALTUS. *Pect. testâ ovatâ, ventricosâ, altiore quam longâ, æquilaterali, æquivalvi, valvis costis tenuibus numerosis lævibus densè radiatis; violaceâ, fusco-nigro sparsim variegatâ; auriculis valdè inæqualibus, posticis perparvis.*

THE HIGH PECTEN. Shell ovate, ventricose, higher than long, equilateral, equivalve, valves densely rayed with numberous smooth fine ribs; violet, sparingly variegated with brown-black; ears very unequal, the posterior very small.

Hab. ——?

An unusually narrow ventricose species, closely finely smooth-ribbed throughout.

Species 133. (Mus. Cuming.)

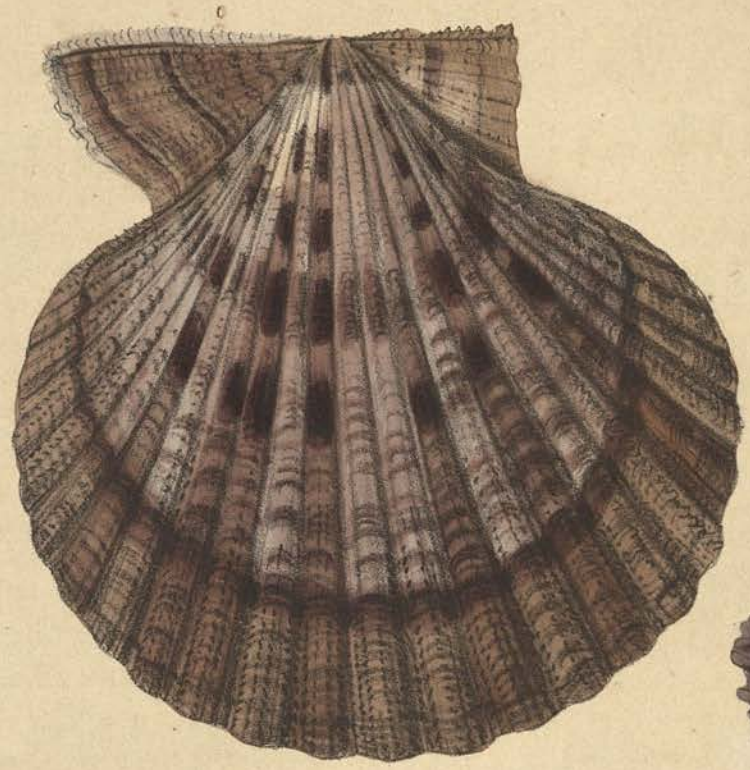
PECTEN PARVUS. *Pect. testâ trigono-ovatâ, subæquilaterali, æquivalvi, valvis, sinistrâ planâ, dextrâ convexiore, octocostatis, costis rotundatis, tumidiusculis, fimbriato-scabrosis, alternatim majoribus, interstitiis liris parvis scabrosis duabus vel tribus; albâ, punctis perpaucis roseis notatâ, umbonibus roseis; auriculis valdè inæqualibus.*

THE SMALL PECTEN. Shell triangularly ovate, nearly equilateral, equivalve, valves, the left flat, the right more convex, eight-ribbed; ribs rounded, rather swollen, fimbriately scabrous, alternately larger, interstices with two to three small scabrous ridges; white, marked with a very few rose dots, umboes rose; ears very unequal.

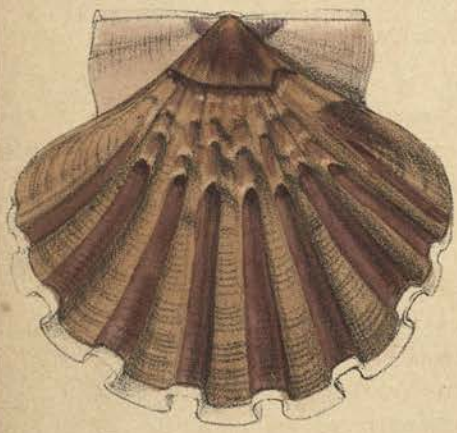
SOWERBY, Pro. Zool. Soc. 1835, p. 110.

Hab. Lord Hood's Island, Pacific Ocean (in coral sand on the reefs); Cuming.

Most elaborately scabrous-sculptured throughout.



134. a.



135.

136.

134. b.

Sowerby, del. et lith.

F. Reeve imp.

PECTEN.

PLATE XXX.

Species 134. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN NOBILIS. *Pect. testâ suborbiculari, compresso-convexâ, æquilaterali, æquivalvi, costis duabus et viginti radiatâ, costis anticis tenuisquamatis, interstitiis subtiliter serrato-liratis, costis lateralibus versus umbonem squamatis, squamis subremotis, erecto-muricatis; albidâ, purpurascente-fusco tinctâ et variegatâ, interdum intensè croceâ; auriculis inæqualibus, plus minus squamatis.*

THE NOBLE PECTEN. Shell nearly orbicular, compressly convex, equilateral, equivalve, rayed with two-and-twenty ribs, anterior ribs thinly scaled, interstices finely serrately ridged, lateral ribs scaled towards the umboes, the scales being rather distant and erectly prickly; whitish, tinged and variegated with purplish-brown, sometimes deep saffron-yellow; ears unequal, more or less scaled.

Hab. Moreton Bay, Australia; Strange.

This fine species, from Moreton Bay, is perfectly distinct from any other hitherto known, though not distinguished very strikingly in general aspect.

Species 135. (Mus. Cuming.)

PECTEN LAQUEATUS. *Pect. testâ semiglobosâ, æquilaterali, valdè inæquivalvi, valvâ sinistrâ depresso-concavâ, in dextrâ immersâ, concentricè densè striatâ, costis octo rotundatis distantibus radiatâ, fulvo-rufescente, costis saturatioribus, versus umbonem interruptis; valvâ dextrâ valdè convexâ, ventricosâ, costis septem latissimis lævibus, costis duabus minoribus ad utrumque latus, interstitiis angustis, profundè excavatis, concentricè striato-scabrosis; albâ, maculis perpaucis rufis prope umbonem; auriculis æqualibus.*

THE GUTTERED PECTEN. Shell semiglobose, equilateral, very inequivalve, left valve depressly concave, immersed in the right valve, concentrically densely striated, rayed with eight rounded distant ribs, fulvous-red, ribs darker red, interrupted towards the umbo; right valve very convex, ventricose, with seven very broad smooth ribs, with two smaller ribs on each side, interstices narrow, deeply excavated, concentrically striately scabrous; white, with a very few red spots near the umbo; ears equal.

SOWERBY, Thesaurus Conch. vol. i. p. 46. pl. 15. f. 101.

Hab. California.

Described by Mr. Sowerby, from a single valve, the right one. In the accompanying figure, the left valve, which was not known to him, is the most conspicuous.

Species 136. (Mus. Cuming.)

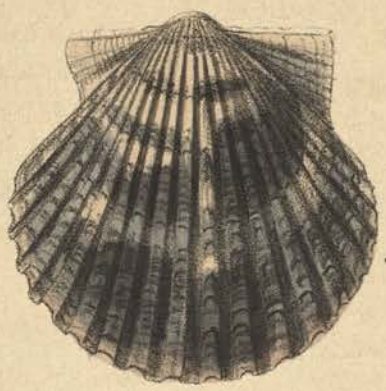
PECTEN TEGULA. *Pect. testâ trigono-orbiculari, altiôre quam longâ, compressâ, subirregulari, vix æquilaterali, inequivalvi, valvâ sinistrâ costis novem ad tredecim plus minus conspicuè foliaceo-squamatis irregulariter radiatâ, dextrâ multiliratâ, liris obtusis, densè brevisquamatis; purpureo-castaneâ, squamis pallidioribus, umbonibus violascentibus; auriculis valdè inæqualibus.*

THE TILE-ROOF PECTEN. Shell triangularly orbicular, higher than long, compressed, rather irregular, scarcely equilateral, inequivalve, left valve irregularly rayed with nine to thirteen more or less conspicuously foliaceous-scaled ribs, right valve many-ridged, ridges obtuse, densely short-scaled; purple-chestnut, with the scales paler, umboes violet; ears very unequal.

WOOD, Index Testaceologicus, Supp. p. 7. pl. 2. *Ostrea*, f. 3.

Hab. Sydney; Strange.

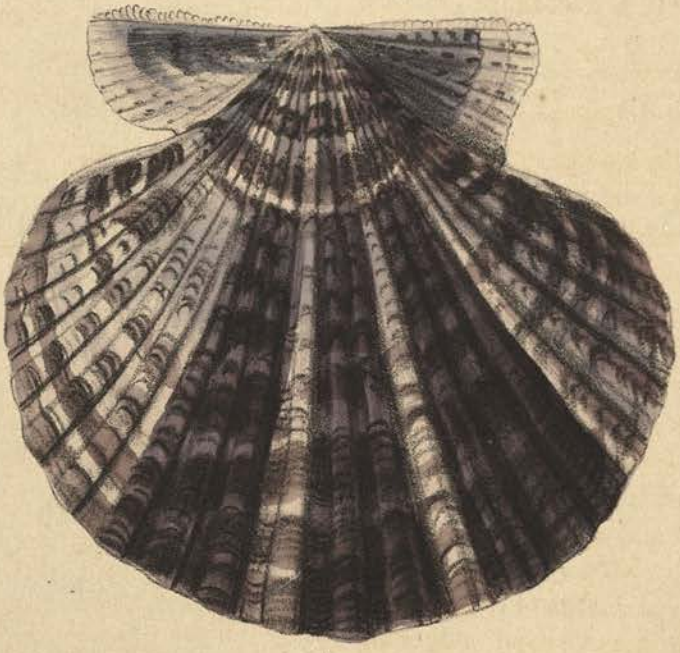
Distinguished from all other Pectens by its irregular foliaceous-scaled *Spondylus*-like growth.



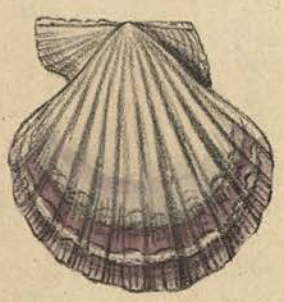
137.

138.

139. a.



140. a.



139. b.

141.

140. b.

Sowerby del. et lith.

F. Reeve, imp.

PECTEN.

PLATE XXXI.

Species 137. (Mus. Cuming.)

PECTEN CIRCULARIS. *Pect. testâ globosâ, ventricosissimâ, æquilaterali, inæquivalvi, valvis, dextrâ convexiore, costis lævibus fortibus octodecim, interstitiis excavatis, radiatis; cinereo-albâ, griseo-nigro tinctâ et variegatâ; auriculis æqualibus.*

THE CIRCULAR PECTEN. Shell globose, very ventricose, equilateral, inequivalve, valves, right the more convex, rayed with eighteen smooth strong ribs, of which the interstices are excavated; ash-white, stained and variegated with greyish-black; ears equal.

SOWERBY, Pro. Zool. Soc. 1835. p. 110.

Hab. California (in sandy mud at seven fathoms); Cuming.

It is very doubtful whether this is anything more than a variety of *P. nucleus*.

Species 138. (Mus. Cuming.)

PECTEN DENTICULATUS. *Pect. testâ trigono-ovatâ, altiore quam longâ, planulatâ, compressâ, tenui, subpellucidâ, æquilaterali, subæquivalvi, valvis radiatim liratis, liris valvæ sinistræ ad quindecim, angustis, alternatim majoribus, squamulis parvis irregularibus, valvæ dextræ permultis, squamulis minoribus, scabroso-aculeatis; auriculis valdè inæqualibus, supernè denticulatis; pellucido-lutescente, roseo obsoletè tinctâ.*

THE DENTICLED PECTEN. Shell triangularly ovate, higher than long, flattened, compressed, thin, subtransparent, equilateral, nearly equivalve, valves radiately ridged, ridges of the left valve about fifteen in number, alternately larger, fimbriated with small irregular scales, of the right valve very numerous, with the scales smaller and scabrous-prickly; ears very unequal, denticulated along the upper edge; transparent yellow, obsoletely tinged with rose.

ADAMS and REEVE, Zool. Voy. Samarang, Moll. p. 74. pl. 21. f. 14.

Hab. Shores of Borneo.

A thin transparent flatly compressed shell, rayed with numerous fine scabrous-scaled ridges.

Species 139. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN FUCATUS. *Pect. testâ suborbiculari, tenuiculâ, subconvexâ, æquilaterali, æquivalvi, valvis costis duodecim rotundatis subnodosis radiatis, costis et præcipuè interstitiis prope marginem liratis; albâ, prope marginem carmineâ aut violaceâ; auriculis inæqualibus.*

THE DYED PECTEN. Shell nearly orbicular, rather thin, slightly convex, equilateral, equivalve, valves rayed with twelve rounded subnodose ribs, ribs and especially the interstices ridged near the margin; white, carmine or violet near the margin; ears unequal.

Hab. West Indies.

Of very simple character, but peculiarly distinct from any other described species.

Species 140. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN CUMINGII. *Pect. testâ orbiculari, compresso-convexâ, æquilaterali, subæquivalvi, valvis costis rotundatis viginti regulariter radiatis, interstitiis subexcavatis, striis concentricis subtilissimè exsculptis; albidâ, violaceo-fusco et aurantio interdum roseo et violaceo variegatâ; auriculis grandibus, æqualibus, aut roseis aut purpureo-fuscis, strigis albis acutè undulatis sæpè notatis.*

CUMING'S PECTEN. Shell orbicular, compressly convex, equilateral, nearly equivalve, valves regularly rayed with twenty rounded ribs, the interstices being excavated and very finely sculptured with concentric striæ; whitish, variegated with violet-brown and orange, sometimes with rose and violet only; ears large, equal, rose or purple-brown, often marked with white zigzag streaks.

Hab. Moreton Bay, Australia; Strange.

This fine new species is greatly distinguished for its very rich and beautiful colouring.

Species 141. (Mus. Cuming.)

PECTEN CORNEUS. *Pect. testâ subobliquè ovatâ, subcorneâ, convexâ, inæquilaterali, subæquivalvi, valvis costis plurimis, lævibus, irregularibus, radiatis, interstitiis concentricè tenuistriatis; pellucido-albâ, costis hic illic fulvo-corneis; auriculis subæqualibus.*

THE HORNY PECTEN. Shell rather obliquely ovate, rather horny, convex, inequilateral, nearly equivalve, valves rayed with numerous smooth irregular ribs, interstices concentrically finely striated; transparent-white, ribs here and there fulvous-horny; ears nearly equal.

SOWERBY, Thesaurus Conch. vol. i. p. 71. pl. 13. f. 44 and 45, and pl. 20. f. 244 and 245.

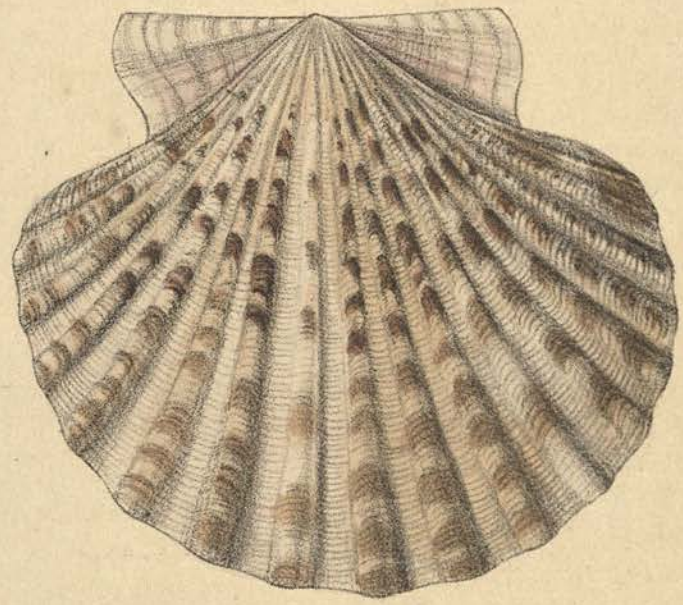
Hab. Straits of Magalhaens.

Approximating to the type represented by *P. Patagonicus*, from the same locality.

142

143.

144.



145.

146.

147.

148.

Sowerby del et lith.

F. Reeve, imp.

PECTEN.

PLATE XXXII.

Species 142. (Mus. Cuming.)

PECTEN PULCHELLA. *Pect. testâ subquadrato-orbiculari, compresso-convexâ, subæquivalvi, inæquilaterali, valvis concentricè tenuistriatis, costis lævibus quatuordecim peculiariter obliquè radiatis, interstitiis latiusculis; albidâ, roseo et violaceo profusè et eximiè tinctâ, valvâ dextrâ pallidiore; auriculis grandibus, inæqualibus.*

THE PRETTY PECTEN. Shell somewhat squarely orbicular, compressly convex, nearly equivalve, inequilateral, valves concentrically finely striated, peculiarly obliquely rayed with fourteen smooth ribs, interstices rather broad; whitish, profusely and delicately stained with violet and rose, right valve the paler; ears large, unequal.

Hab. Moreton Bay, Australia; Strange.

A delicate but richly coloured species, rib-rayed in a peculiarly oblique manner.

Species 143. (Mus. Cuming.)

PECTEN CORUSCANS. *Pect. testâ globosâ, valdè convexâ, æquilaterali, inæquivalvi, valvis costis peculiariter acutè tri-liratis viginti radiatis, interstitiis densè scabroso-cancellatis; albidâ, roseo variè tinctâ et maculatâ; auriculis inæqualibus.*

THE GLITTERING PECTEN. Shell globose, very convex, equilateral, inequivalve, valves rayed with twenty ribs, which are peculiarly sharply three-ridged, interstices densely scabrous-cancellated; whitish, variously stained and blotched with rose; ears unequal.

HINDS, Moll. Voy. Sulphur, p. 61. pl. 17. f. 3.

Hab. Port Anna Maria, Nukuhiva, Marquesas Islands (in seven fathoms on a sandy floor); Belcher.

The ribs of this species differ peculiarly in structure from those of any other.

Species 144. (Mus. Cuming.)

PECTEN RUGOSUS. *Pect. testâ ovatâ, æquilaterali, æquivalvi, valvis costis viginti, confertis, brevisquamatis, radiatâ; fulvâ, fusco-nigricante variegatâ; auriculis inæqualibus.*

THE ROUGH PECTEN. Shell ovate, equilateral, equivalve, valves rayed with twenty close-set short-scaled ribs; fulvous, variegated with brown-black; ears unequal.

SOWERBY, Pro. Zool. Soc. 1842.

Hab. Island of Burias, Philippines; Cuming.

A small profusely scaled species, of variegated tortoise-shell-like colouring.

Species 145. (Mus. Cuming.)

PECTEN LEOPARDUS. *Pect. testâ ovatâ, flabelliformi, medio subconvexâ, ad umbones et versus marginem compressâ, æquilaterali, vix æquivalvi, valvis concentricè densè scabroso-striatis, costis sexdecim rotundatis radiatis, costis valvæ sinistræ subangustis distantibus, dextræ latioribus minus distantibus; albâ, costis valvæ sinistræ fulvo-ferrugineo tinctis et maculatis; auriculis grandibus, æqualibus.*

THE LEOPARD PECTEN. Shell ovate, fan-shaped, slightly convex in the middle, compressed at the umboes and towards the margin, equilateral, scarcely equivalve, valves concentrically densely scabrous-striated, rayed with sixteen rounded ribs, ribs of the left valve rather narrow and distant, of the right valve broader and less distant; white, ribs of the left valve stained and spotted with fulvous rust; ears large, equal.

Hab. Moreton Bay, Australia.

A very delicate densely striated species, of the same peculiar type as *P. solaris*.

Species 146. (Mus. Cuming.)

PECTEN HYALINA. *Pect. testâ elongato-ovatâ, flabelliformi, tenui, hyalinâ, nitente, vix æquilaterali, æquivalvi, valvis costis decem planulatis superficiariis obsoletè radiatis; cinerascente-corneâ, punctis rufis et albis promiscuè aspersâ; auriculis æqualibus.*

THE HYALINE PECTEN. Shell elongately oval, fan-shaped, thin, hyaline, shining, scarcely equilateral, equivalve, valves obsoletely rayed with ten flattened superficial ribs; ash-horny, promiscuously sprinkled with red and white dots; ears equal.

POLI, Test. utriusque Sicil. pl. 28. f. 6.

Hab. Mediterranean.

A transparent horny shell, with the ribs so superficial as to be scarcely perceptible.

Species 147. (Mus. Cuming.)

PECTEN RUFIRADIATUS. *Pect. testâ ovatâ, altiore quam longâ, tenuiculâ, æquilaterali, æquivalvi, valvis costis sex et viginti angustis subacutis nitidè radiatis, costis lateralibus lirâ intermediâ prope marginem, costis interstitiisque undique subtilissimè crenulatis; pellucido-albâ, costis conspicuè rufis; auriculis inæqualibus, subobliquis.*

THE RED-RAYED PECTEN. Shell ovate, higher than long, rather thin, equilateral, equivalve, valves neatly rayed with six-and-twenty narrow sharp ridges, lateral ribs with an intermediate ridge near the margin, ribs and interstices very finely crenulated throughout; transparent-white, ribs conspicuously red; ears unequal, rather oblique.

Hab. Strait of Magalhaens.

Another very characteristic form of the type peculiar to this locality, represented by *P. Patagonicus*.

Fig. 148. (Mus. Cuming.)

This shell proves to be a variety of *P. Strangei* from Moreton Bay, described at Pl. IV. Sp. 22.

149.

150.

151.

152a.

153.

154.

152b.

155.

156.

157.

Sowerby, del. et lith.

F.Reeve, imp.

PECTEN.

PLATE XXXIII.

Species 149. (Mus. Cuming.)

PECTEN CORUSCANS. *Pect. testâ suborbiculari, planiusculâ, tenui, inæquiauriculatâ, pallidè violascente, prope umbones strigis parvis lacteis obliquis indutâ; valvis convexiusculis, consimilibus, dextrâ pallidiore, costis quatuordecim, serratis, argutè sulcatis, interstitiis sulcatis; auriculis inæqualibus, serrato-sulcatis, posticâ minimâ, obliquâ; intus pallescente.*

THE GLITTERING PECTEN. Shell suborbicular, rather flat, thin, unequal-eared, pale violet, covered near the umboes with small oblique white streaks; valves rather convex, very much alike, right valve paler, ribs fourteen, serrated, smartly grooved, interstices grooved; ears unequal, serrately grooved, posterior ear very small, oblique; pale within.

HINDS, Moll. Voy. Sulphur, p. 61. pl. 17. f. 3.

Hab. Port Anna Maria, Nukuhiva, Marquesas Islands (in seven fathoms, on a sandy floor); Belcher.

The specimens in Mr. Cuming's collection, with the above name, being found to represent two distinct species, I propose to substitute for the former, figured in the preceding plate, the name *P. nux*. The description above printed is quoted word for word from Mr. Hinds, as being the type. The description at Sp. 143 is from the shell figured there.

Species 150. (Mus. Cuming.)

PECTEN CROTILUS. *Pect. testâ ovatâ, altiore quam longâ, æquivalvi, subæquilaterali, valvis leviter convexis, liris irregularibus angustis densè minutè squamatis profusè sculptis; intensè purpurascente-rubrâ, sparsim nigro-punctatâ; auriculis valdè inæqualibus, anticis multo majoribus.*

THE SLENDER PECTEN. Shell ovate, higher than long, equivalve, nearly equilateral, valves slightly convex, profusely sculptured with densely minutely scaled narrow irregular ridges; deep purplish-red, sparingly black-dotted; ears very unequal, the anterior much the larger.

Hab. ——?

Of very thin substance, the purplish-red showing deeply through in the interior.

Species 151. (Mus. Cuming.)

PECTEN MUNDUS. *Pect. testâ suborbiculari, tenui, compressâ, æquilaterali, æquivalvi, valvis costis quatuor et viginti tenuibus leviter crenatis radiatis, liră minutâ intercurrente; aurantio-crocatâ; auriculis valdè inæqualibus, anticis majoribus, subexpansis, per marginem squamatis.*

THE NEAT PECTEN. Shell suborbicular, thin, compressed, equilateral, equivalve, valves rayed with twenty-four thin, slightly crenated ribs, with a minute ridge running between them; bright orange-yellow; ears very unequal, front ears larger, rather expanded, scaled along the edge.

Hab. ——?

A thin compressed shell, of very decided regular sculpture.

Species 152. (Fig. *a*, *b*, Mus. Cuming.)

PECTEN DRINGI. *Pect. testâ trigono-ovatâ, altiore quam longâ, subobliquâ, compressâ, inæquilaterali, inæquivalvi, valvis costis octo latiusculis, subdepressis, undique serrato-liratis radiatis; fulvescente, valvâ sinistrâ interdum rufo-nigro punctatâ et variegatâ, interdum intensè violaceâ, rufo umbones versus maculatâ, valvâ dextrâ pallidiore; auriculis valdè inæqualibus, anticis latè obliquè expansis.*

DRING'S PECTEN. Shell triangularly ovate, higher than long, rather oblique, compressed, inequilateral, inequivalve, valves rayed with eight rather broad, subdepressed ribs, which are everywhere serrately ridged; light fulvous, left valve sometimes dotted and variegated with red-black, sometimes deep violet, blotched with red towards the umboes, right valve paler; ears very unequal, the anterior broadly obliquely expanded.

Hab. Bathurst Island, north-west coast of Australia; Dring.

A light strongly striated species of rather thin substance, somewhat obliquely expanded, with the front ear rather large and flexuous. Colouring extremely variable.

Species 153. (Mus. Cuming.)

PECTEN IDÆUS. *Pect. testâ orbiculari, compresso-convexâ, æquilaterali, inæquivalvi, valvis costis duodecim lirisque numerosis, omnibus subnodulosis et pulcherrimè crenu-*

latis, radiatis, liris valvæ dextræ lævioribus et plus regularibus; purpurascente-rufâ, subiridescente.

THE RASPBERRY PECTEN. Shell orbicular, compressly convex, equilateral, inequivalve, valves rayed with twelve ribs and numerous ridges, all subnodose, and very beautifully crenulated, ridges of the right valve smoother and more regular; purplish-red, subiridescent.

Hab. ——?

An extremely characteristic species, of a peculiar submetallic raspberry colour.

Species 154. (Mus. Cuming.)

PECTEN VESTALIS. *Pect. testâ subtrigono-ovatâ, paululum altiore quam longâ, depresso-convexâ, æquilaterali, subæquivalvi, valvis, dextrâ subconvexiore, costis octodecim radiatis, costis triangularibus, confertis, lirâ serrato-squamatâ ad summitatem et in sulco interstitiali; rubescente, punctis roseis aspersâ, ad umbones lutescente; auriculis valdè inæqualibus.*

THE VESTAL PECTEN. Shell somewhat triangularly ovate, a little higher than long, depressly convex, equilateral, nearly equivalve, valves, the right rather the more convex, rayed with eighteen ribs, ribs triangular, close-set, with a serrately squamate ridge along the summit and in the interstitial groove; reddish, sprinkled with rose dots, yellowish at the umboes; ears very unequal.

Hab. West Indies.

Of a delicate blush-red colour, peculiarly angle-ribbed and serrated.

Species 155. (Mus. Cuming.)

PECTEN SOLIDULUS. *Pect. testâ suborbiculari, solidulâ, subplano-gibbosâ, ad latera plano-compressâ, æquilaterali, subæquivalvi, valvis costis viginti subplanulatis confertis radiatis, interstitiis leviter crenulatis; albidâ, lateribus et valvâ sinistrâ purpurascente maculatis; auriculis grandibus, subæqualibus.*

THE RATHER SOLID PECTEN. Shell nearly orbicular, rather solid, rather flatly gibbous, flatly compressed at the sides, equilateral, nearly equivalve, valves rayed with twenty rather flattened close-set ribs, the interstices between which are slightly crenulated; whitish, sides and left valve spotted with light purple; ears large, nearly equal.

Hab. ——?

This has somewhat the appearance of a young *P. gibbosus*, but it is distinct.

Species 156. (Mus. Cuming.)

PECTEN EFFULGENS. *Pect. testâ ovatâ, altiore quam longâ, tenuiculâ, æquivalvi, subæquilaterali, liris numerosis tenuibus multisquamatis undique nitidè radiatâ; aurantio-miniato, purpurascente albi-marginato arcuatim strigatâ; auriculis parviusculis, valdè inæqualibus.*

THE BRIGHT PECTEN. Shell ovate, higher than long, rather thin, equivalve, nearly equilateral, neatly rayed throughout with numerous thin many-scaled ridges; bright orange-vermilion, archedly streaked with light white-edged purple; ears rather small, very inequivalve.

Hab. ——?

Of a bright subtransparent orange-vermilion, profusely finely scaled.

Species 157. (Mus. Cuming.)

PECTEN PUSIO. *Pect. testâ subtrigono-ovatâ, compressiusculâ, medio gibbosâ, subæquilaterali, æquivalvi, valvis liris numerosis, acutis, irregularibus, subrudè nodulosis et hic illic squamatis, confertim radiatis; albidâ, purpurascente profusè punctatâ; auriculis valdè inæqualibus.*

THE CHILD PECTEN. Shell somewhat triangularly ovate, rather compressed, gibbous in the middle, nearly equilateral, equivalve, valves closely rayed with numerous sharp irregular ridges, somewhat rudely nodulous, and here and there squamate; whitish, profusely dotted with purple; ears very unequal.

Ostrea pusio, Linnæus, Syst. Nat. p. 1146.

Pecten pusio, Lamarck.

Hab. Mediterranean.

This shell, which we take to be the Linnæan *O. pusio*, is quite distinct from *P. varius*, as intimated by Lamarck and Deshayes.

158.

159.

160.

161.

162.a

162.b

163.

164.

165.

166.

PECTEN.

PLATE XXXIV.

Species 158. (Fig. 158 and 165, Mus. Cuming.)

PECTEN LARVATUS. *Pect. testâ subtrigono-ovatâ, tenui, subplano-compressâ, vix æquilaterali, subæquivalvi, valvis liris numerosis obtusè crenatis, lineisque, densè radiatis; vividè aurantio-crocinâ, vel nigro mineoque radiatâ, lineis perpaucis albis notatâ; auriculis valdè inæqualibus.*

THE MASKED PECTEN. Shell somewhat triangularly ovate, thin, rather flatly compressed, scarcely equilateral, nearly equivalve, valves thickly rayed with numerous obtusely crenated ridges and lines; bright orange-saffron, or rayed black and vermilion, marked with a few white lines; ears very unequal.

Hab. Philippine Islands.

The ridges and lines are close-set, and very irregular. The colouring, as may be seen by the two specimens here figured, is most variable, but the white zigzag lines are constant.

Species 159. (Mus. Cuming.)

PECTEN SANGUINOLENTUS. *Pect. testâ ovatâ, compressâ, convexiusculâ, æquilaterali, æquivalvi, valvis costis parvis octo et viginti profusè brevisquamatis confertim radiatis; albidâ, sanguineo-fusco plus minus tinctâ et maculatâ; auriculis inæqualibus.*

THE BLOOD-STAINED PECTEN. Shell ovate, compressed, rather convex, equilateral, equivalve, valves closely rayed with twenty-eight small profusely short-scaled ribs; whitish, more or less stained and blotched with blood-brown; ears unequal.

Hab. —— ?.

Peculiarly richly coloured and very profusely five-scaled.

Species 160. (Mus. Cuming.)

PECTEN TESTUDINEUS. *Pect. testâ ovatâ, æquilaterali, æquivalvi, valvis costis regularibus viginti radiatis, costis confertis, versus marginem conspicuè squamatis; luteo et fusco-nigro intensè variegatâ; auriculis valdè inæqualibus.*

THE TORTOISE-SHELL PECTEN. Shell ovate, equilateral, equivalve, valves rayed with twenty regular ribs, ribs close-set, conspicuously scaled towards the margin; deeply variegated with yellow brown-black; ears very unequal.

Hab. Amboyna.

A richly marked species, with very much the appearance of tortoise-shell.

Species 161. (Mus. Cuming.)

PECTEN FRICATUS. *Pect. testâ suborbiculari, compressâ, medio gibbosiusculâ, æquivalvi, æquilaterali, valvis costis quinque vel sex et viginti obtusis, ad latera subacutangulis radiatis, costis tenuiserratis, lateralibus minutè squamatis; albidâ, rufescente prope marginem sparsim maculatâ; auriculis inæqualibus.*

THE RUBBED PECTEN. Shell nearly orbicular, compressed, rather gibbous in the middle, equivalve, equilateral, valves rayed with five- or six-and-twenty obtuse ribs which are rather sharp-angled at the sides, ribs very finely serrated, lateral ribs minutely scaled; whitish, sparingly blotched with red near the margin; ears unequal.

Hab. —— ?

The ribs are all more or less arched over with a fine thread of red colour.

Species 162. (Fig. *a* and *b*, Mus. Cuming.)

PECTEN BLANDUS. *Pect. testâ suborbiculari, compresso-convexâ, æquivalvi, æquilaterali, valvis costis ad sex et viginti tenuè serrato-squamatis radiatis, interstitiis angustis, costis lateralibus profusè minutè squamatis; crocinâ vel miniaceâ, saturatè aut pallidè nebulatâ; auriculis valdè inæqualibus.*

THE ALLURING PECTEN. Shell nearly orbicular, compressly convex, equivalve, equilateral, valves rayed with about six-and-twenty finely serrately squamate ribs, interstices narrow, lateral ribs profusely minutely scaled; saffron or vermilion, clouded darker or lighter; ears very unequal.

Hab. Australia.

The fine scales in this species are sometimes of a compound character.

Species 163. (Mus. Cuming.)

PECTEN DAUCUS. *Pect. testâ suboblique orbiculari, subventricosâ, æquivalvi, inæquilaterali, valvis costis qua-*

tuor et viginti peculiariter trifariam divisis et profusè squamatis radiatis; intus extusque intensè purpureo-miniaceo, aurantio-tinctâ, immaculatâ; auriculis inæqualibus.

THE CARROT PECTEN. Shell somewhat obliquely orbicular, rather ventricose, equivalve, inequilateral, valves rayed with four-and-twenty peculiarly three-divided profusely scaled ribs; deep purple vermilion, within and without tinged with orange, unspotted; ears unequal.

Hab. Island of Corfu.

Remarkably deep-toned in colour both within and without.

Species 164. (Mus. Cuming.)

PECTEN RETICULATUS. *Pect. testâ ovatâ, subaltiore quam longâ, convexo-compressâ, æquilaterali, subæquivalvi, valvis costis duabus et viginti lævibus regularibus radiatis; albidâ, maculis purpureo-rufis aspersâ, lineis tenuibus arcuatis undique per costas; auriculis subamplis inæqualibus.*

THE NETTED PECTEN. Shell ovate, rather higher than long, convexly compressed, equilateral, nearly equivalve, valves rayed with two-and-twenty smooth regular ribs; whitish, sprinkled with blotches of purple-red, with arched lines throughout across the ribs; ears rather large, unequal.

Hab. —— ?

The painting of this species is similar in design to that of *P. fricatus*, but the shell is quite distinct in form.

Fig. 165. (Mus. Cuming.)

This very characteristic species proves on examination to be a variety of *P. larvatus*, Sp. 158, under which head its peculiarity of colouring is noticed.

Species 166. (Mus. Cuming.)

PECTEN CLOACATUS. *Pect. testâ trigono-ovatâ, subflabelliformi, subventricosâ, æquivalvi, æquilaterali, valvis costis sedecim radiatis, costis elevatis, rotundatis, subnodoso-crenatis, subdistantibus, lateribus interstitiisque excavatis; albâ, cinereo-carneo tinctâ et maculatâ; auriculis inæqualibus.*

THE GUTTERED PECTEN. Shell triangularly ovate, somewhat fan-shaped, rather ventricose, equivalve, equilateral, valves rayed with sixteen ribs, which are raised, rounded, subnodosely crenated and rather distant, with the sides and interstices excavated; white, stained and spotted with ash-flesh colour; ears unequal.

Hab. Philippine Islands.

An extremely characteristic species, quite distinct from any hitherto described.

167

168

169

170

171

172

173

174

175

176

Sowerby, del. et lith.

F. Reeve, imp.

PECTEN.

PLATE XXXV.

Species 167. (Mus. Brit.)

PECTEN CONCINNUS. *Pect. testâ trigono-ovatâ, valvâ sinistrâ subplanulatâ, costis novem rotundatis, valdè elevatis, subdistantibus radiatâ, interstitiis subampliter excavatis, costis interstitiisque eleganter minutè squamato-liratis; albidâ, costis undique regulariter roseo-maculatis; auriculis inæqualibus.*

THE PRETTY PECTEN. Shell triangularly ovate, left valve rather flattened, rayed with nine rather distant, rounded, very elevated ribs, with the interstices rather largely excavated, ribs and interstices elegantly minutely scale-ridged; whitish, ribs regularly rose-blotched throughout; ears unequal.

Hab. Red Sea.

An elegantly painted and neatly sculptured shell, of which the only specimens known to me are two valves in the British Museum, both left valves.

Species 168. (Mus. Cuming.)

PECTEN ARGENTEUS. *Pect. testâ suborbiculari, tenui, pellucidâ, compresso-convexâ, æquilaterali, subæquivalvi, valvis costis decem rotundatis concentricè striatis radiatis, interstitiis latiusculis, decussatim striatis; argenteo-albâ, fusco in interstitiis maculatâ et punctatâ; auriculis æqualibus.*

THE SILVERY PECTEN. Shell nearly orbicular, thin, transparent, compressly convex, equilateral, nearly equivalve, valves rayed with ten concentrically striated rounded ribs, interstices rather broad, decussately striated; silvery-white, spotted and dotted with brown in the interstices; ears equal.

Hab. China Sea.

A transparent white shell, dotted in the interstices between the ribs with brown.

Species 169. (Mus. Cuming.)

PECTEN TENELLUS. *Pect. testâ ovatâ, tenuiculâ, compresso-convexâ, æquilaterali, vix æquivalvi, valvis costis quinque lævibus radiatis, liris tribus intervenientibus, costâ posticâ extremâ squamâ magnâ ad marginem; roseâ, immaculatâ, ad latera albipunctatâ; auriculis grandibus, expansis, inæqualibus, ad marginem squamatis.*

THE DELICATE PECTEN. Shell ovate, rather thin, compressly convex, equilateral, scarcely equivalve, valves rayed with five smooth ribs, with three ridges coming between, the extreme posterior rib with a large scale at the margin; pink, unspotted, white-dotted at the sides; ears large, expanded, unequal, scaled along the margin.

Hab. ——?

This has the appearance of being an immature shell, but it is, nevertheless, of marked character.

Species 170. (Mus. Cuming.)

PECTEN LENTIGINOSUS. *Pect. testâ trigono-ovatâ, subflabelliformi, compressâ, æquilaterali, inæquivalvi, valvâ sinistrâ costis lirisque numerosis grandibus et parvis, profusè noduloso-squamatis, subirregulariter radiatâ, valvâ dextrâ ecostatâ, undique liratâ, squamis brevibus, abruptè nodulosis; purpurascente-albâ, intensè purpureo hic illic tinctâ et maculatâ; auriculis valdè inæqualibus, flexuosis.*

THE SPECKLED PECTEN. Shell triangularly ovate, somewhat fan-shaped, compressed, equilateral, equivalve, left valve somewhat irregularly rayed with numerous large and small ribs and ridges, profusely nodulously scaled, right valve not ribbed, ridged throughout, with the scales short and abruptly nodulous; purplish-white, stained and spotted here and there with deep purple; ears very unequal, flexuous.

Hab. ——?

A very characteristic new species, easily recognizable by the details above noted.

Species 171. (Mus. Hinds.)

PECTEN FASCICULATUS. *Pect. testâ latè subtrigonâ, planiusculâ, tenui, inæquiauriculatâ, rufo-violascente, albo maculatâ, valvis consimilibus, costis parvis, numerosis, eleganter serratis, in fascibus quinque plerumque aggregatis, alteris interstitiis suppletis; auriculis inæqualibus, rectis, argutè serratis, dentatis, intus violascente.*

THE BUNCHED PECTEN. Shell broadly subtriangular, rather flat, thin, unequal-eared, reddish-violet, spotted with white, valves very like, ribs small, numerous, elegantly serrated, generally aggregated in five bunches, the others filling the interstices; ears un-

equal, straight, sharply serrated, toothed, violet within.

HINDS, Moll. Voy. Sulphur, p. 61. pl. 17. f. 4.

Hab. West coast of Veragua. In seventeen fathoms, among sandy mud; Hinds.

A beautiful and delicate shell, traversed by numerous small finely serrated ribs, a large portion of which are gathered into five bunches or bundles, the others being less aggregated, and occupying the interspaces. The auricles differ in size, and are strongly grooved, with intervening sharp ridges. Within the valves are coarsely ribbed, and of a rich peach-colour.—*Hinds.*

Species 172. (Mus. Hinds.)

HELIX DIGITATUS. *Pect. testâ subtrigonâ, planiusculâ, solidâ, æquiauriculatâ, pallidâ, sanguineo transversim nubeculatâ; valvis consimilibus, costis novem rotundatis sulcatis; umbonibus subplanatis, lævigatis; marginibus minutè denticulatis; intus albâ.*

THE FINGERED PECTEN. Shell somewhat triangular, rather flat, solid, equal-eared, pale, clouded transversely with blood-red; valves very like, with nine rounded grooved ribs; umboes rather flat, smooth; margins minutely denticulated; white within.

HINDS, Moll. Voy. Sulphur, p. 61. pl. 17. f. 2.

Hab. Bay of Guayaquil. In twenty-three fathoms, mud; Hinds.

The description and figure of this and the preceding species, which are unknown to me, are copied from the 'Mollusca of the Voyage of the Sulphur.'

Species 173. (Mus. Cuming.)

PECTEN MULTICOSTATUS. *Pect. testâ ovatâ, tenuiculâ, gibbosâ, æquilaterali, æquivalvi, valvis costis triginta angustis subdistantibus, obsoletè nodulosis, ad latera subsquamulatis radiatis; intensè miniaceâ, immaculatâ, ad umbones albo marmoratâ; auriculis valdè inæqualibus.*

THE MANY-RIBBED PECTEN. Shell ovate, rather thin, gibbous, equilateral, equivalve, valves rayed by thirty rather distant, narrow, obscurely noduled ribs, finely scaled at the sides; deep vermilion, unspotted, marbled with white at the umboes; ears very unequal.

Hab. New Zealand.

A light gibbous deep-coloured shell, rayed with numerous cord-like ribs.

Species 174. (Mus. Cuming.)

PECTEN TEXTILIS. *Pect. testâ ovatâ, subaltiore quam longâ, æquilaterali, subæquivalvi, valvâ sinistrâ planiore, ambabus densè irregulariter liratis, liris undique obtusè squamatis; albâ, vividè aurantio marmoratâ; auriculis valdè inæqualibus.*

THE BROCADED PECTEN. Shell ovate, rather higher than long, equilateral, nearly equivalve, left valve flatter, both valves densely irregularly ridged, ridges obtusely scaled throughout; white, mottled with bright orange; ears very unequal.

Hab. ——?

Allied in some respects to *P. pusio*, but differing in form and sculpture.

Species 175. (Mus. Cuming.)

PECTEN GEMMULATUS. *Pect. testâ trigono-ovatâ, paululum altiore quam longâ, tenui, æquilaterali, subæquivalvi, valvis liris subtilibus gemmulatis undique pulcherrimè radiatis; pellucido-carneâ, ustulato-spadiceo tinctâ, lineis albis brevibus ad latera sparsim promiscuè notatâ, valvâ dextrâ pallidiore; auriculis valdè inæqualibus.*

THE FINELY-BEADED PECTEN. Shell triangularly ovate, a little higher than long, thin, equilateral, equivalve, valves very beautifully rayed throughout with fine beaded ridges; transparent flesh tinged with burnt fawn-colour, sparingly promiscuously marked at the sides with short white lines; ears very unequal.

Hab. ——?

Very delicately and strikingly sculptured.

Species 176. (Mus. Cuming.)

PECTEN TENUIGRANOSUS. *Pect. testâ ovatâ, compresso-convexâ, vix æquilaterali, subinæquivalvi, valvis liris numerosis tenuibus, subtiliter noduloso-squamatis, interstitiis peculiariter densè granulatis, radiatis; valvâ sinistrâ rufo-purpureâ, dextrâ albicante; auriculis valde inæqualibus.*

THE FINE-GRAINED PECTEN. Shell ovate, compressly convex, scarcely equilateral, rather inequivalve, valves rayed with numerous thin ridges, finely nodulously scaled, interstices peculiarly granulated; left valve reddish-purple, right valve whitish; ears very unequal.

Hab. ——?

The sculpture of this species is also peculiar and distinctly marked.

PECTEN.

	Plate.	Species.
albo-lineatus, *Sowerby*	XXIV.	95
altus, *Reeve*	XXIX.	132
argenteus, *Reeve*	XXXV.	168
Armoricanus, Chemnitz	XXVIII.	122
asper, *Sowerby*	II.	10
asperrimus, *Lamarck*	XX.	75
asperulatus, *Adams and Reeve*	XXVI.	109
aspersus, Lamarck	III.	13
aspersus, Sowerby	I.	4
aurantiacus, *Adams and Reeve*	XXVI.	105
aurantius, Sowerby	V.	24
Australis, *Sowerby*	XXV.	103
arthriticus, *Reeve*	XXVIII.	119
bifrons, *Lamarck*	XII.	45
blandus, *Reeve*	XXXIV.	162
Bornii, Payraudeau	XIX.	66
Bruei, *Payraudeau*	XX.	72
circularis, *Sowerby*	XXXI.	137
clavatus, *Poli*	IV.	18
cloacatus, *Reeve*	XXXIV.	166
concinnus, *Reeve*	XXXV.	167
concentricus, Say	VI.	26
corallinoides, *D'Orbigny*	VI.	27
corallinus, Chemnitz	III.	15
corneus, *Sowerby*	XXXI.	141
coruscans, *Hinds*	XXXIII.	149
crassicostatus, *Sowerby*	XVIII.	64
cretatus, *Reeve*	XXIX.	129
cristularis, *Adams and Reeve*	XXV.	99
crotilus, *Reeve*	XXXIII.	150
cruentatus, *Reeve*	XIX.	69
cuneatus, *Reeve*	XXIV.	94
cuneolus, *Reeve*	XXIX.	131
Cumingii, *Reeve*	XXXI.	140
daucus, *Reeve*	XXXIV.	163
Danicus, *Chemnitz*	III.	13
Darwinii, *Reeve*	XVII.	62
denticulatus, *Adams and Reeve*	XXXI.	138
dentatus, *Sowerby*	VII.	30
Dieffenbachi, *Gray*	XXII.	88
digitatus, *Reeve*	XXXV.	172
discors, Chemnitz	XV.	55
distans, *Lamarck*	XIII.	49
domesticus, Chemnitz	XXVIII.	122
Dringi, *Reeve*	XXXIII.	152
Dumasii, Payraudeau	IV.	18
effulgens, *Reeve*	XXXIII.	156
erubescens, *Reeve*	XXVIII.	121
exasperatus, *Sowerby*	II.	7
excavatus, Anton	VIII.	33
exoticus, Chemnitz	XVI.	56

	Plate.	Species.
Fabricii, *Philippi*	XXIV.	97
fasciculatus, *Reeve*	XXXV.	171
filosus, *Reeve*	XI.	42
flabelloides, *Reeve*	IV.	21
flavidulus, Lamarck	XIV.	53
flexuosus (*Ostrea*), Poli	XVI.	61
floridus, *Hinds*	VIII.	34
fricatus, *Reeve*	XXXIV.	161
fucatus, *Reeve*	XXXI.	139
fulvicostatus, *Adams and Reeve*	XXVIII.	123
funebris, *Reeve*	XXII.	85
fumatus, *Reeve*	VII.	32
fuscus, *Klein*	VIII.	35
gemmeus, *Reeve*	XXXV.	175
gemmulatus, *Reeve*	XXVII.	111
gibbus (*Ostrea*), Linnæus	IX.	37
glaber, Montagu	III.	13
glaber (*Ostrea*), Linnæus	XIV.	53
gloriosus, *Reeve*	XXX.	134
griseus, Lamarck	XIV.	53
hastatus, *Sowerby*	XI.	43
histrionicus, *Gmelin*	XXIX.	130
hyalina, *Poli*	XXXII.	146
Idæus, *Reeve*	XXXIII.	153
imbricatus (*Ostrea*), Gmelin	XXI.	79
inæquivalvis, *Sowerby*	I.	1
inflexus, Poli	IV.	18
irradians, *Lamarck*	VI.	26
irregularis, *Sowerby*	IV.	19
Isabella, Lamarck	XVI.	61
Islandicus (*Ostrea*), Müller	XIV.	52
Jacobæus (*Ostrea*), Linnæus	X.	39
Jamesonii, Smith	III.	13
Japonicus (*Ostrea*), Gmelin	XII.	47
laqueatus, *Sowerby*	XXX.	135
larvatus, *Reeve*	XXXIV.	158
latiauritus, *Conrad*	I.	5
Laurentii, *Gmelin*	XVI.	58
Layardi, *Reeve*	XXI.	80
lemniscatus, *Reeve*	XXXV.	170
lentiginosus, *Reeve*	XX.	76
leopardus, *Reeve*	XXXII.	145
leucophæus, *Reeve*	I.	6
limatula, *Reeve*	XXVIII.	124
lividus, *Lamarck*	XIX.	71
lævis, Pennant	XXVIII.	122
luculenta, *Reeve*	XVI.	59
Madreporarum, *Petit*	XXVIII.	117
Magellanicus (*Ostrea*), Gmelin	XIII.	51
magnificus, *Sowerby*	II.	9
maximus (*Ostrea*), Linnæus	IX.	38

	Plate.	Species.
medius, *Lamarck*	XI.	44
miles, *Reeve*	XXV.	101
miniaceus, *Lamarck*	XXII.	86
mirificus, *Reeve*	XXVI.	104
modestus, *Reeve*	XI.	41
mollitus, *Reeve*	XXV.	100
multicostatus, *Reeve*	XXXV.	173
mundus, *Reeve*	XXXIII.	151
muscosus, *Wood*	XVI.	60
nasans, *Philippi*	XXVII.	113
nebulosus, Brown	III.	13
nobilis, *Reeve*	I.	3
nodosus (*Ostrea*), Linnæus	III.	15
Novæ-Zelandiæ, *Reeve*	VIII.	36
nucleus, *Born*	XXII.	89
nux, *Reeve*	XXXII.	143
obliteratus (*Ostrea*), Linnæus	XIX.	70
obsoletus, Pennant	XXVIII.	122
opercularis (*Ostrea*), Linnæus	XV.	54
ornatus, *Lamarck*	XIX.	68
pallium (*Ostrea*), Linnæus	XVII.	63
parvus, *Sawerby*	XXIX.	133
Patagonicus, *King*	XXVI.	110
pes-anatis, *Reeve*	VI.	28
pes-felis (*Ostrea*), Linnæus	XIX.	66
pica, *Reeve*	XXVII.	115
pictus, *Sowerby*	XXVIII.	116
pleuronectes (*Ostrea*), Linnæus	XIII.	48
plica (*Ostrea*), Linnæus	III.	16
proteus, *Solander*	XV.	55
prunum, *Reeve*	XX.	78
pseudamusium, Chemnitz	III.	13
pseudamusium, *Klein*	XVI.	56
pseudo-lima, *Sowerby*	XVI.	57
pulchella, *Reeve*	XXXII.	142
pulcherrimus, Gray	XXVIII.	118
purpuratus, *Lamarck*	V.	25
pusio (*Ostrea*), Linnæus	XXXIII.	157
pyxidatus, *Born*	XXIV.	96
radula (*Ostrea*), Linnæus	XXI.	83
Reevei, *Adams*	XXIII.	91
reticulatus, *Reeve*	XXXIV.	164
roseo-punctatus, *Reeve*	XXII.	84
rubicundus, Chemnitz	IX.	37
rubidus, *Hinds*	XXIII.	90
rufiradiatus, *Reeve*	XXXII.	147
rugosus, *Sowerby*	XXXII.	144
russatus, *Reeve*	XXIX.	126
sanguineus, Sowerby	XIX.	69
sanguinolentus (*Ostrea*), Gmelin	XXIV.	98
saniosus, *Reeve*	XXXIV.	159
senatorius (*Ostrea*), Gmelin	XXI.	81
sentis, *Reeve*	XXIX.	125
sericeus, *Hinds*	V.	23
serratus, *Sowerby*	XII.	46
Sinensis, *Sowerby*	VIII.	33
Singaporinus, *Sowerby*	XX.	74
solaris, *Born*	XXIII.	92
solidulus, *Reeve*	XXXIII.	155
Sowerbyi, Guilding	IX.	37
Sowerbyi, *Reeve*	I.	4
speciosus, *Reeve*	XXVII.	112
spectabilis, *Reeve*	XXIX.	128
spectrum, *Reeve*	XXIII.	93
spiniferus, *Sowerby*	XXVIII.	118
splendidulus, *Sowerby*	XIX.	67
squamosus, *Gmelin*	XVIII.	65
squamatus (*Ostrea*), Gmelin	XXI.	82
stellatus, *Reeve*	II.	11
Strangei, *Reeve*	IV.	22
subnodosus, *Sowerby*	IV.	20
subplicatus, *Sowerby*	III.	17
subrufus, *Turton*	X.	40
sugillatus, *Reeve*	I.	2
sulcatus, *Born*	XIII.	50
superbus, *Sowerby*	XXVI.	107
tegula, *Wood*	XXX.	136
tenellus, *Reeve*	XXXV.	169
tenuigranosus, *Reeve*	XXXV.	176
testudineus, *Reeve*	XXXIV.	160
textilis, *Reeve*	XXXV.	174
tigrinus, *Müller*	XXVIII.	122
tigris, *Lamarck*	XX.	77
tinctus, *Reeve*	XXVI.	106
Tranquebaricus (*Ostrea*), Gmelin	III.	14
tricarinatus, Anton	II.	10
triradiatus, *Reeve*	XXVIII.	120
tumidus, Sowerby	VII.	31
turgidus, Sowerby	VI.	26
undulatus, *Sowerby*	XX.	73
unicolor, *Lamarck*	V.	24
ustulatus, *Reeve*	XXII.	87
varius (*Ostrea*), Linnæus	XXV.	102
velutinus, *Sowerby*	II.	12
ventricosus, *Sowerby*	VII.	31
vestalis, *Reeve*	XXXIII.	154
vexillum, *Reeve*	XXVII.	114
virgo, Lamarck	XIV.	53
vulgaris, Da Costa	IX.	38
ziczac (*Ostrea*), Linnæus	VI.	29

ERRATA.

Species 134. For *P. nobilis* read *P. gloriosus.*
Species 143. For *P. coruscans* read *P. nux.*
Species 159. For *P. sanguinolentus* read *P. saniosus.*
Species 170. For *P. lentiginosus* read *P. lemniscatus.*
Species 175. For *P. gemmulatus* read *P. gemmeus.*

MONOGRAPH

OF THE GENUS

HINNITES.

"And Seas, immeasurably deep,
Which, in their secret holds, do keep
Treasures unknown to human thought,
Treasures by human hands unsought."—*C. P.*

Sowerby, del et lith.

F. Reeve, imp.

HINNITES.

PLATE I.

Genus HINNITES, *Defrance.*

Testa inæquivalvis, adhærens, crassa, subponderosa, valvis vix auriculatis, radiatim liratis. Area cardinalis in valvis ambabus lata, edentula, foveâ subprofundâ oblongâ in medio. Impressio muscularis perampla, sublateralis.

Shell inequivalve, adhering, thick, rather ponderous, valves slightly auriculated, radiately ridged. Hinge area in both valves broad, toothless, with a rather deep oblong pit in the middle. Muscular impression very large, sublateral.

This genus was founded by M. Defrance with two fossil species, and had been received by conchologists, when Mr. Gray discovered that a large bivalve shell in the British Museum, referred by him with a note of doubt to *Lima*, belonged to it. It was in August, 1826, that Mr. Gray announced this discovery in the 'Annals of Philosophy.' The shell which he had described in the same periodical as *Lima? gigantea*, he now referred to the fossil genus of Defrance, altering the generic name, for reasons which we think untenable, to *Hinnita*, and afterwards to *Hinnus*. Another shell of similar generic character turned up in the old collection of Dr. Goodall, and this Mr. Sowerby described as *Hinnites corallinus* in the third volume of the 'Zoological Journal.' M. Deshayes and Mr. Sowerby, by reason of the peculiarity of its mode of attachment, referred the *Ostrea (Pecten) sinuosus*, which is probably identical with the Linnean *Ostrea (Pecten) pusio*, to Defrance's genus, but the relationship has not been confirmed by subsequent researches. Messrs. Forbes and Hanley have shown, in their 'History of British Mollusca,' that this *Pecten* lives free when young, and merely attaches itself in the adult state. The shell then takes an irregular form of growth, still preserving its generic characters. The *Pecten pusio* is represented in the accompanying plate in the state in which it has been called *Ostrea* and *Hinnites sinuosus*, but inasmuch as it does not possess the broad, solid, cardinal area and heavy *Spondylus*-like character of *Hinnites*, it should not be included in the genus.

Hinnites has more of the general character of *Spondylus* than of *Pecten*, but the hinge is distinct, being without teeth, and produced into an area equally in both valves. One of the species inhabits the Old World, and the other the New.

Species 1. (Fig 2. Mus. Brit.)

HINNITES CORALLINUS. *Hinn. testâ subflabelliformi, flexuosâ, valdè irregulari, areâ cardinali subangustâ; rudè scabroso-liratâ, subfimbriatâ; intensè corallio-rubrâ.*

THE CORAL HINNITES. Shell somewhat fan-shaped, flexuous, very irregular, cardinal area rather narrow; rudely scale-ridged, subfrilled; deep coral-red.

SOWERBY, Zool. Journ. vol. iii. p. 71.

Hab. East Africa; Sowerby.

The outer surface of this specimen is very much broken and worm-eaten, but very characteristic, both in respect of sculpture and colour. The interior is remarkable for its conspicuous muscular impression, the surface being sculptured with a strong veinous net-work.

Species 2. (Fig. 3. Mus. Brit.)

HINNITES GIGANTEUS. *Hinn. testâ ovatâ, convexâ, radiatim scabroso-liratâ, liris prope umbones lævibus, nitidè binis; aurantio-rufescente, vel albidâ, intus albâ, prope cardinem vividè purpureo-violaceâ.*

THE GIGANTIC HINNITES. Shell ovate, convex, radiately scabrous-ridged, smooth and neatly disposed in pairs near the umboes; orange-red, or whitish, interior white, stained with rich purple-violet near the hinge.

GRAY, Annals of Philosophy, 2nd Series, vol. xii. p. 103.

Hab. California and Straits of Juan Fernandez.

The ridges of this species, which is of more convex oblong growth than the preceding, are here and there at nearly equal distances larger. One of the principal characteristics of the species is the deep purple-violet colouring of the hinge.

MONOGRAPH

OF THE GENUS

M A C T R A.

"Of sea-born kinds, ten thousand thousand tribes
Find endless range for pasture or for sport."—*Mallet.*

1

2

3

MACTRA.

PLATE I.

Genus MACTRA, *Linnæus*.

Testa ovato-trigona vel transversa, lateribus paulisper hians; umbonibus prominentibus. Dens cardinalis in utrâque valvâ compressus, plicato-canaliculatus, cum adjectâ foveolâ intus prominulâ. Dentes laterales duo compressi, utrinque prope cardinem inserti; ligamentum internum, in foveolâ cardinali insertum.

Shell ovately triangular or transverse, a little gaping at the sides; umboes prominent. Cardinal teeth in each valve compressed, plicately channelled, with the interlying pit rather prominent within; two lateral compressed teeth inserted on each side near the hinge; ligament internal, inserted in the hinge pit.

There is no genus of bivalves which it is more easy to determine than *Mactra*. The shell has, with little variation, a characteristic triangular form, more or less transversely ovate or oblong; and the hinge is distinguished by a prominent central triangular tooth in one valve, which closely interlocks in a corresponding pit in the opposite valve. The *Mactræ* are mostly void of colour, but some are very prettily tinged and rayed with rose or purple. In sculpture they are also deficient, compared with the *Tellinidæ* or *Veneridæ*, having seldom more than concentric grooves and striæ or plait-like ridges. The anterior or front half of the shell is, with few exceptions, the shorter, and this is sometimes concentrically grooved and striated while the posterior side is smooth. Beneath the umboes on the anterior side a neat heart-shaped lunule is generally formed, and the striæ of the valves mostly converge on the shield of this in a more regular and elegantly developed state. On the posterior side the ligamentary area is more broadly spread, and mostly angled on each side. Some of the *Mactræ*, more especially those inhabiting the Northern Seas, are ponderous and *Mya*-like; the majority of the species inhabiting the tropical seas are thin, some almost transparent, and most elegantly wave-wrinkled and striated. The localities noted in the following monograph will show that the genus is pretty evenly distributed over the globe, from the Arctic Seas along both sides of the African continent to Van Diemen's Land in the eastern hemisphere, and from the North American Seas to Panama and Columbia in the western.

Lamarck enumerated about thirty species in his Anim. sans vert., but several have been described subsequently by different authors, and the genus has lately undergone a complete revision by M. Deshayes, who has been staying in this country for the purpose, while assisting in the arrangement of Mr. Cuming's and our national collections. The species are brought up in the present monograph to a hundred and twenty-five in number. It will be seen that several well-marked groups are included in this number, all belonging to the Lamarckian genus *Mactra*, but denominated as genera by the more advanced conchologists, under the names of *Mulinia*, *Schizodesma*, *Cypricia*, *Raeta*, *Standella*, *Spisula*, etc., as will be seen by the synonyms.

Species 1. (Mus. Brit.)

MACTRA TRIANGULARIS. *Mact. testâ trigono-elongatâ, compressâ, solidâ, inæquilaterali, latere antico paulo breviore, ambobus compresso-acuminatis, transversim plicato-liratâ, fuscescente-albâ, maculis fuscescentibus parvis sparsim aspersâ; umbonibus parvis, angularibus, approximatis; lunulâ areâque peramplis, lanceolato-ovatis, medio elevatis, fusco-strigatis.*

THE TRIANGULAR MACTRA. Shell trangularly elongated, compressed, solid, inequilateral, anterior side a little the shorter, both sides compressly acuminated, transversely plicately ridged, brownish-white, sparingly sprinkled with small brown spots; umboes small, angular, approximated; lunule and area very large, lanceolately ovate, raised in the middle, streaked with brown.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 103. Enc. Méth. pl. 253. f. 3 *a*, *b*, *c*.
Spisula triangularis, Gray.

Hab. —— ?

An extremely rare species, of a peculiarly triangularly elongated wedge-shape, sprinkled with small red-brown spots.

Species 2. (Mus. Cuming.)

MACTRA VENERIFORMIS. *Mact. testâ orbiculato-subtrigonâ, inflatâ, convexissimâ, cordiformi, subæquilaterali, anticè obtusâ, posticè longiore, angulatâ, transversim regulariter striatâ, ad umbones lævigatâ, squalidè albâ vel griseâ, posticè intus extusque violaceo-tinctâ; umbonibus tumidis, prominentibus, obliquè cordatis; lunulâ areâque latis, ovatis, regulariter plicatis; sinu pallii lato, subsemicirculari.*

THE VENUS-SHAPED MACTRA. Shell orbicularly subtriangular, inflated, nearly convex, heart-shaped, nearly equilateral, anteriorly obtuse, posteriorly angled, transversely regularly striated, smooth at the umboes, dirty-white or grey, posteriorly violet-tinged within and without; umboes swollen, prominent, obliquely cordate; lunule and area broad, ovate, regularly plaited; sinus of the mantle broad, subsemicircular.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. China Sea and Japan.

A tumid heart-shaped species, approaching to the form of *Gnathodon*.

Species 3. (Mus. Cuming.)

MACTRA QUADRANGULARIS. *Mact. testâ ovato-subquadrangulari, tenui, tumidâ, cordiformi, subæquilaterali, transversim plicato-liratâ, squalidè griseâ, epidermide flavescente tenuissimâ indutâ, latere antico subtruncato, lato, posticum subæquante; umbonibus tumidis, obliquè cordatis, approximatis; lunulâ areâque indistinctis, eleganter plicatis; sinu pallii brevi, subtrigono, apice obtuso.*

THE QUADRANGULAR MACTRA. Shell ovately subquadrangular, thin, swollen, heart-shaped, nearly equilateral, transversely plicately ridged, dirty-grey, covered with a very thin yellowish epidermis, anterior side slightly truncated, broad, nearly equal to the posterior; umboes swollen, obliquely cordate, approximated; lunule and area indistinct, elegantly plicated; sinus of the mantle short, subtriangular, obtuse at the top.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. China.

A thin *Cardium*-like species, neatly ridged across, except in the vicinity of the umboes, which are smooth.

Species 4. (Mus. Brit.)

MACTRA MAXIMA. *Mact. testâ perampliter inflatâ, ovato-subrhombeâ, inæquilaterali, transversim striatâ et rugosâ, albidâ, epidermide nigro-fuscâ marginem versus indutâ, anticè angustè hiante, posticè latissimè hiante; umbonibus magnis, obtusis, approximatis; sinu pallii lato, profundo, horizontali.*

THE VERY LARGE MACTRA. Shell very largely inflated, ovately subrhomboidal, inequilateral, transversely striated and rough, whitish, covered towards the margin with a black-brown epidermis, anteriorly narrowly gaping, posteriorly very broadly gaping; umboes large, obtuse, approximated; sinus of the mantle broad, deep, horizontal.

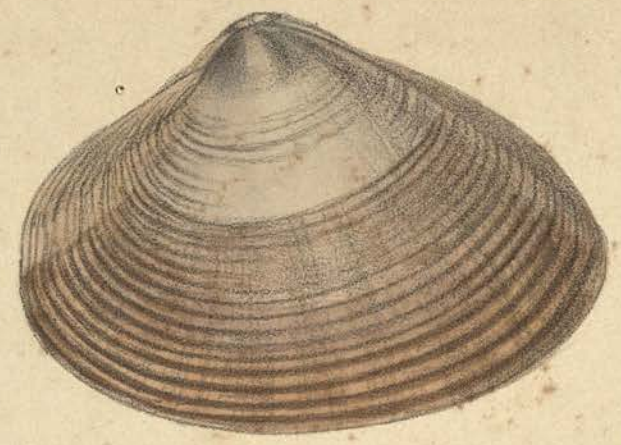
Lutraria maxima, Middendorf, Malac. zool. Russ. part 3. pl. 66. pl. 19. f. 1–4.

Lutraria inflata, Dunker.

Tresus maximus, Gray.

Hab. California.

This fine species, the largest of the genus, is chiefly remarkable for the wide gaping of its posterior end, which gives to the shell a *Panopæa*-like form.



5.

6.

7.

8.

MACTRA.

PLATE II.

Species 5. (Mus. Cuming.)

MACTRA SULCATARIA. *Mact. testâ ovato-transversâ, subæquilaterali, turgidulâ, utrâque extremitate æqualiter obtusâ, transversim sulcatâ, ad umbones lævigatâ, flavâ, umbonibus depressis, violaceis, albo radiatis; lunulâ areâque magnis, eleganter plicatis; valvis intus albo-flavescentibus; cardine angusto, fossulâ ligamenti obliquâ; dentibus lateralibus compressis, brevibus.*

THE GROOVED MACTRA. Shell ovately transverse, nearly equilateral, rather swollen, equally obtuse at each extremity, transversely grooved, smooth at the umboes, yellowish, umboes depressed, violet, white-rayed; lunule and area large, elegantly plaited; valves whitish-yellow within; hinge narrow, ligamentary pit oblique; lateral teeth compressed, short.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Chiefly distinguished by its transverse concentric grooves, which converge neatly on each side in the area and lunule.

Species 6. (Mus. Cuming.)

MACTRA CORDIFORMIS. *Mact. testâ subtrigonâ, tenui, ventricosâ, vix æquilaterali, extremitate posticâ subproductâ, transversim minutè striatâ, umbones versus lævibus; lunulâ areâque subamplis, subtiliter plicato-lixatis; flavescente-albâ, umbones versus ferrugineo-fusco sparsim tinctâ et marmoratâ, intus albâ.*

THE HEART-SHAPED MACTRA. Shell subtriangular, thin, ventricose, scarcely equilateral; posterior extremity rather beaked, transversely minutely striated, smooth towards the umboes; lunule and area rather large, delicately plicately ridged; yellowish-white, sparingly mottled and stained with rust-red towards the umboes, white interiorly.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

A thin ventricose subtriangular species, finely striated, almost smooth, the striæ gathering into the area and lunule in fine close-set plait-like ridges. The shell is of a yellowish-white, zigzag-mottled, and stained about the umboes with light rust-red.

Species 7. (Mus. Cuming.)

MACTRA INFLATA. *Mact. testâ subtrigono-ovatâ, parum tumidâ, vix æquilaterali, latere antico breviusculo, postico subangulato-truncato; lunulâ indistinctâ, areâ magnâ; albidâ, violascente tinctâ et radiatâ, umbonibus violaceis, intus albâ.*

THE INFLATED MACTRA. Shell somewhat triangularly ovate, but little swollen, scarcely equilateral, anterior side rather short, posterior rather angularly truncated; lunule indistinct, area large; whitish, stained and rayed with pale violet, umboes violet, interior white.

BROWN, Philippi, Enum. Moll. Siciliæ, p. 11. pl. 3. f. 1.

Hab. Naples.

It is somewhat doubtful whether this is not a variety of the *M. stultorum*, though more solid and compressed than the typical form of that species.

Species 8. (Mus. Cuming.)

MACTRA SOLIDISSIMA. *Mact. testâ transversè oblongâ, crassiusculâ, sordidè albâ, epidermide flavescente-fuscâ indutâ, inæquilaterali, latere postico longiore, paululum hiante; lunulâ areâque subindistinctis; foveâ cardinali perampla, triangulari, impressione pallii posticè indentatâ.*

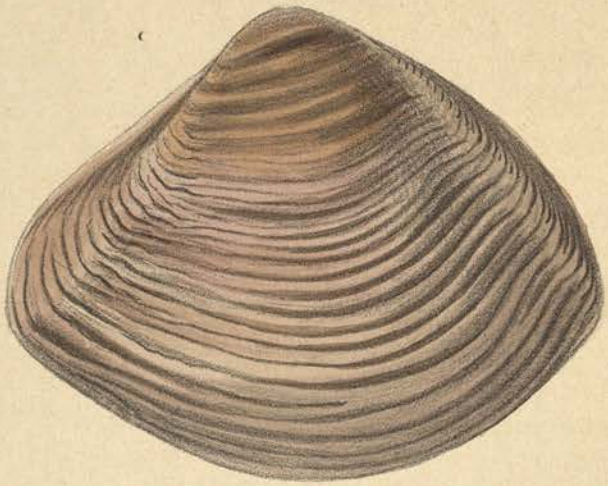
THE VERY SOLID MACTRA. Shell transversely oblong, rather thick, dirty-white, covered with a yellowish-brown epidermis, inequilateral, posterior side the longer, a little gaping; lunule and area rather indistinct; hinge-pit very large, triangular, impression of the mantle indented posteriorly.

CHEMNITZ, Conch. Cab. vol. x. pl. 170. f. 1656.

Mactra gigantea, Lamarck.

Hab. United States (about sandy beaches); Gould.

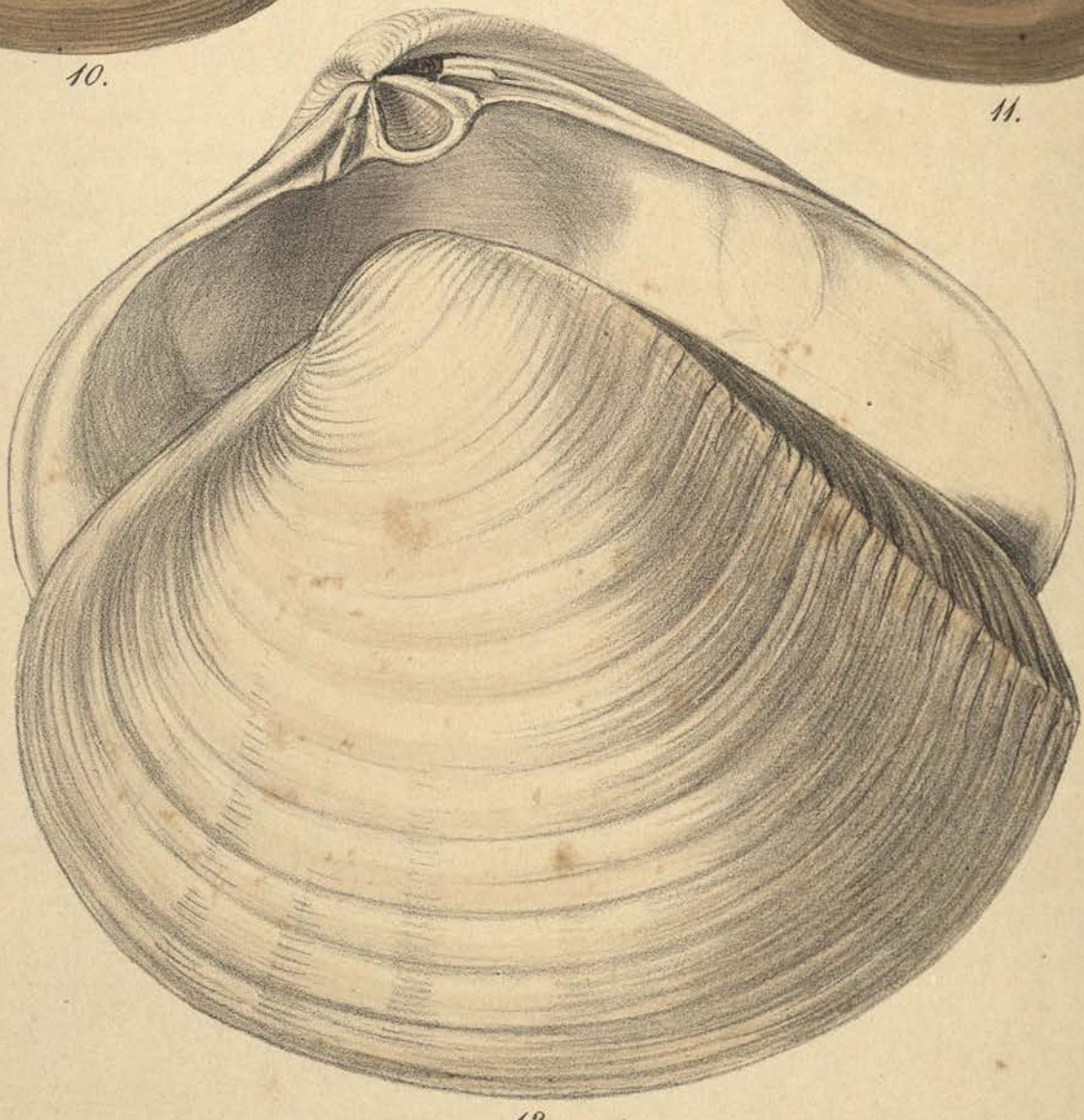
Dr. Gould, of Boston, United States, describes this large species as living abundant about the sandy beaches of Massachusetts. At low water it is dug out of the sand with shovels; at higher tides, when the shell is open, the fishermen wade into the water, thrusting a pointed stick into the sand before them as they walk along. Whene th stick passes between the valves, the animal closes the shell upon it and is drawn up.



9.

10.

11.



12.

Sowerby, del. et. lith.

F. Reeve, imp.

MACTRA.

PLATE III.

Species 9. (Mus. Cuming.)

MACTRA RUFESCENS. *Mact. testâ ovato-trigonâ, inæquilaterali, crassâ, solidâ, lateribus planâ et subangulatâ, transversim sulcato-plicatis, plicis irregulariter flexuoso-corrugatis; albâ, rufescente plus minus tinctâ, ad umbones indistinctè radiatâ, latere antico attenuato, subrostrato, postico angulato; areâ lunulâque magnis, flexurâ circumdatis, intus albâ, sinu pallii brevi; dentibus cardinalibus validis.*

THE REDDISH MACTRA. Shell ovately triangular, inequilateral, thick, solid, flat and rather angled at the sides, transversely groove-plaited, plaits irregularly flexuously wrinkled; white, more or less stained with red, indistinctly rayed at the umboes, anterior side attenuated and a little beaked, posterior angled; area and lunule large, surrounded with a flexure, interior white, sinus of the mantle short; cardinal teeth strong.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 102.

Hab. Van Diemen's Land.

A solid flexuously wrinkled shell, having very much the form of a gibbous *Crassatella*, but without the rich brown epidermis characteristic of that genus.

Species 10. (Mus. Cuming.)

MACTRA SERICEA. *Mact. testâ ovato-transversâ, tenui, compressâ, medio tumidiusculâ, subæquilaterali, latere antico rotundato, postico subattenuato, paululum hiante, lævigatâ, versus marginem tenuistriatâ, albâ, epidermide fuscescente sericeâ indutâ; areâ lunulâque vix convexis, subtiliter plicato-striatis, umbonibus parvis, ad apices violaceis; cardine angusto, dentibus lateralibus elongatis, fossulâ profundâ, sinu pallii obliquè ascendente.*

THE SILKY MACTRA. Shell ovately transverse, thin, compressed, rather swollen in the middle, nearly equilateral, anterior side rounded, posterior rather attenuated and a little gaping, smooth, finely striated towards the margin, white, covered with a light brown silky epidermis; area and lunule scarcely convex, finely plicately striated, umboes small, violet-tinged at the tips; hinge narrow, lateral teeth elongated, pit deep, sinus of the mantle obliquely ascending.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

A thin compressed transverse species, rather swollen towards the umboes, covered with a light brown silky epidermis. Umboes violet at the tips.

Species 11. (Mus. Cuming.)

MACTRA EPIDERMIA. *Mact. testâ ovato-transversâ, tenui, compressâ, albidâ, epidermide fuscescente sericeâ indutâ, subæquilaterali, latere antico rotundato, postico sublongiore, paululum flexuoso-carinulato; lunulâ areâque angustis, elongatis.*

THE CLOTHED MACTRA. Shell ovately transverse, thin, compressed, whitish, covered with a light brown silky epidermis, nearly equilateral, anterior side rounded, posterior rather longer and slightly flexuously keeled; lunule and area narrow, elongated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Faro, Portugal.

A thin compressed species, slightly flexuously keeled down the posterior side, covered with a light brown silky epidermis.

Species 12. (Mus. Cuming.)

MACTRA STRIATELLA. *Mact. testâ ovato-cordatâ, ventricosâ, tenuiculâ, candidâ, epidermide tenuissimè indutâ, inæquilaterali, latere antico rotundato, postico subangulato-producto, hiante, subtiliter irregulariter concentricè striatâ, umbonibus approximatis, corrugato-plicatis; cardine breviusculo, foveâ subcirculari.*

THE FINELY STRIATED MACTRA. Shell ovately heart-shaped, ventricose, rather thin, white, covered with a very slight epidermis, inequilateral, anterior side rounded, posterior subangularly produced and gaping, finely irregularly concentrically striated, umboes approximated, corrugately plaited; hinge rather short, pit subcircular.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 98.
Enc. Méth. pl. 255. f. 1.
Spisula striatella, Gray.
Mactra albina, Deshayes.

Hab. ——?

A fine large white species, covered with a very thin cuticular epidermis, characteristically wrinkle-plaited about the umboes.

13.

14.

15.

16.

Sowerby, del. et lith.

F. Reeve, imp.

MACTRA.

PLATE IV.

Species 13. (Mus. Cuming.)

MACTRA GLAUCA. *Mact. testâ ovato-transversâ, tenuicula, tumidiusculâ, subæquilaterali, sub epidermide flavidâ vel squalidè fuscescente, pallidè glaucâ, radiis helvis numerosis ornatâ; lunulâ areâque indistinctis, umbonibus parvis, tumidiusculis, approximatis, interdum pallidè violaceis; dentibus lateralibus elongatis, lamellæformibus, in valvâ dextrâ duplicibus; sinu pallii latissimo, brevi, semicirculari.*

THE GLAUCOUS MACTRA. Shell ovately transverse, rather thin, somewhat swollen, nearly equilateral, smooth, pale glaucous, ornamented with numerous light red rays beneath a yellowish or dirty-brown epidermis; lunule and area indistinct, umboes small, rather swollen, approximated, sometimes violet-tinged; lateral teeth elongated, lamelliform, double in the right valve; sinus of the mantle very broad, short, semicircular.

BORN, Mus. Cæs. Vindobonensis, p. 51. pl. 3. f. 11, 12.
Mactra helvacea, Chemnitz.
Mactra Neapolitana, Poli.

Hab. European Seas.

The epidermis of this well-known European species is of a close fibrous silky character.

Species 14. (Mus. Cuming).

MACTRA ÆQUILATERA. *Mact. testâ triangulari, æquilaterali, tumidâ, lævigatâ, anticè striatâ, albo-griseâ, cuticulâ flavescente indutâ, anticè posticèque angulatâ, latere postico plano, lato, angulo acuto circumscripto; lunulâ permagnâ, depressâ, cum aream, lævigatâ; valvis crassis, intus nitidis, albo-griseis; cardine angusto, crasso, brevi; dente cardinali parvo; dentibus lateralibus crassis, brevibus, antico longiore; sinu pallii lato, profundo, semielliptico.*

THE EQUILATERAL MACTRA. Shell triangular, equilateral, swollen, smooth, striated anteriorly, whitish-grey, covered with a yellowish cuticle, angled anteriorly and posteriorly, posterior side flat, broad, forming a sharp angle; lunule very large, depressed, and, with the area, smooth; valves thick, shining within, whitish-grey; hinge-narrow, thick, short; cardinal tooth small; lateral teeth thick, short, anterior the longer; sinus of the mantle broad, deep, semielliptic.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. New Zealand; Earl.

A solid triangular shell, *Donax*-like on the posterior side, and bearing some resemblance in general aspect to *M. Spengleri.*

Species 15. (Mus. Cuming.)

MACTRA STULTORUM. *Mact. testâ ovato-subtrigonâ, æquilaterali, lævigatâ, interdum hic illic obsoletè sulcatâ, violaceo-cinereâ, rufescente tinctâ et radiatâ, umbonibus brevibus, approximatis; areâ gibbosiusculâ, angulo obtusissimo circumscriptâ; intus violaceâ.*

THE FOOLS' MACTRA. Shell ovately subtriangular, equilateral, smooth, sometimes here and there obsoletely grooved, violet-ash, tinged and rayed with pale red, umboes short, approximated; area rather gibbous, surrounded by a very obtuse angle; violet in the interior.

Cardium stultorum, Linnæus, Syst. Nat. (10th edit.) p. 681.
Mactra stultorum, Linnæus (Syst. Nat. 12th edit.).
Mactra rotundata, Gmelin.
Trigonella radiata, Da Costa.
Tellina radiata, Pennant.
Mactra lactea, Potiez and Michaud.
Mactra solida, Payraudeau.

Hab. European Seas.

This commonest of all species ranges throughout the seas of Europe, from Norway to the Mediterranean.

Species 16. (Mus. Cuming.)

MACTRA EXOLETA. *Mact. testâ ovato-transversâ, obliquè cordatâ, tenui, ventricosâ, lævi vel subtilissimè striatâ, epidermide tenui fulvâ corneâ indutâ, latere antico attenuato, compressiusculo, cuneiformi, postico lato, obliquè angulato, ad angulum tenuicarinato; lunulâ inconspicuâ, in medio cristatâ; areâ perampla.*

THE WORN MACTRA. Shell ovately transverse, obliquely cordate, thin, ventricose, smooth or finely striated, covered with a thin fulvous horny epidermis, anterior side attenuated, rather compressed, wedge-shaped, posterior broad, obliquely angled, slightly keeled at the angle; lunule inconspicuous, crested in the middle; area very large.

GRAY, Mag. Nat. Hist. 1837, p. 372.

Hab. Cape Horn and West Columbia.

A very light ventricose species, peculiarly cordately impressed on the anterior side, with the margins of the valves rising through the centre of the lunule into an elevated crest. The epidermis is of a thin horny deciduous character.

17.

18.

19.

20.

Sowerby, del et lith.

F. Reeve, imp.

MACTRA.

PLATE V.

Species 17. (Mus. Cuming.)

MACTRA DISCORS. *Mact. testâ rotundato-ovatâ, subtrigonâ, crassiusculâ, æquilaterali, regulariter convexâ, lævigatâ, griseo-albâ, epidermide nigricante-fuscâ versus marginem indutâ, latere postico subplanulato, angulo obtuso subtiliter carinulato circumscripto, umbonibus parvis, confertim approximatis; lunulâ areâque plicato-striatis; sinu pallii brevissimo, lato, semicirculari.*

THE HARSH MACTRA. Shell rotundately ovate, somewhat triangular, rather thick, equilateral, regularly convex, smooth, greyish-white, covered towards the margin with a blackish-brown epidermis, posterior side rather flattened, surrounded with a slightly keeled obtuse angle, umboes small, closely approximated; lunule and area plicately striated; sinus of the mantle very short, broad, semicircular.

GRAY, Faun. of New Zealand, p. 251. Mag. Nat. Hist. 1837, p. 371.

Hab. New Zealand.

Of rather solid rounded proportions, stone-white, here and there faintly rust-tinged, covered near the margin with a dirty black-brown epidermis.

Species 18. (Mus. Cuming.)

MACTRA MERETRICIFORMIS. *Mact. testâ ovato-trigonâ, tenuiculâ, ventricosissimâ, cordiformi, concentricè tenuistriatâ, striæ in areâ lunulâque plicato-elevatis, sordidè albâ, epidermide fuscescente indutâ, umbonibus atro-violaceis, latere antico rotundato, postico subelongato-rostrato, intus lilacinâ; cardine angusto, in medio prominente; dentibus lateralibus lamellosis; sinu pallii brevi, lato, vix inflexo.*

THE MERETRIX-SHAPED MACTRA. Shell ovately triangular, rather thin, very ventricose, heart-shaped, concentrically finely striated, striæ plicately raised in the area and lunule, dirty-white, covered with a brownish epidermis, umboes blackish-violet, anterior side rounded, posterior somewhat elongately beaked, interior lilac; hinge narrow, prominent in the middle; lateral teeth lamellous; sinus of the mantle short, broad, scarcely inflected.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Port Essington; Jukes.

The name given to this species is intended to denote its general external resemblance with the *Cytherea meretrix.*

Species 19. (Mus. Cuming.)

MACTRA OBESA. *Mact. testâ ovato-trigonâ, subcordiformi, crassiusculâ, ventricosâ, lævigatâ, albâ, epidermide fuscescente indutâ, latere antico obtuso, subangulato-productâ; areâ lunulâque plicato-striatis, umbonibus approximatis; sinu pallii brevi, lato, semielliptico; dentibus lateralibus compressis.*

THE STOUT MACTRA. Shell ovately triangular, somewhat heart-shaped, rather thick, ventricose, smooth, whitish, covered with a light brown epidermis, anterior side obtuse, posterior subangularly produced; area and lunule plicately striated, umboes approximated; sinus of the mantle short, broad, semi-elliptic; lateral teeth compressed.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Torres Straits, North Australia; Jukes.

Somewhat resembling the preceding species in form, though perfectly distinct in detail, more solid, ivory-white about the umboes, and less beaked posteriorly.

Species 20. (Mus. Cuming.)

MACTRA VELATA. *Mact. testâ ovato-oblongâ, subtrigonâ, crassiusculâ, opaco-albâ, ferrugineo-tinctâ, epidermide atro-fuscâ indutâ, inæquilaterali, utrinque hiante, latere postico subcarinulato; areâ lunulâque subangustis, umbonibus confertim approximatis; dentibus lateralibus brevibus, foveâ ligamenti amplâ.*

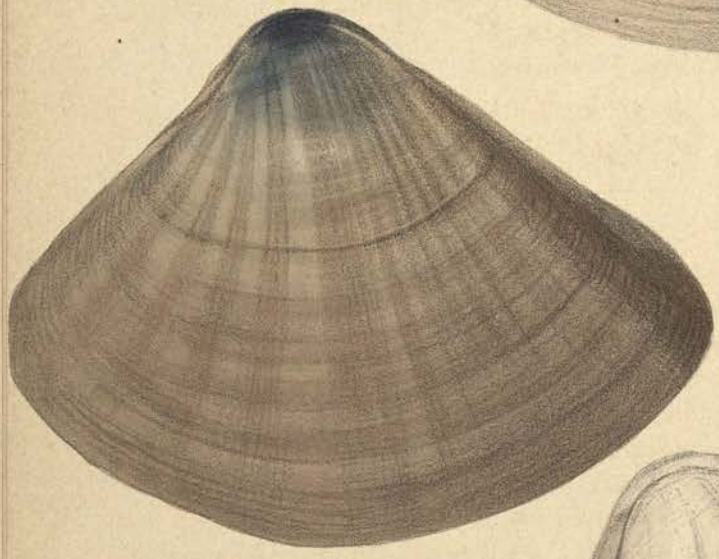
THE CLAD MACTRA. Shell ovately oblong, subtriangular, rather thick, opake-white, rust-tinged, covered with a black-brown epidermis, inequilateral, gaping at each end, posterior side slightly keeled; area and lunule rather narrow, umboes closely approximated; lateral teeth short, ligamentary pit large.

PHILIPPI, Zeitschrift für Malac. 1848, p. 153. Abbild. vol. iii. pl. 3. f. 5.

Hab. Panama (on the reef); C. B. Adams.

A rather solid rust-tinged opake-white shell, covered with a rather thick dirty black-brown fibrous epidermis.

21.



22.

23.

24.

Sowerby, del. et lith.

F. Reeve, imp.

MACTRA.

PLATE VI.

Species 21. (Mus. Cuming.)

MACTRA TUMIDA. *Mact. testâ ovato-trigonâ, ventricosissimâ, tumidâ, tenuiculâ, irregulariter transversim striatâ, versus umbones lævigatâ, extremitatibus angulatâ, anticè subobtusâ, albo-flavescente, ad umbones violaceis; umbonibus cordatis, subapproximatis; sinu pallii brevi, lato, obliquè ascendente.*

THE SWOLLEN MACTRA. Shell ovately triangular, extremely ventricose, swollen, rather thin, irregularly transversely striated, smooth towards the umboes, angled at the extremities, anteriorly a little obtuse, whitish-yellow, violet at the umboes; umboes heart-shaped, rather approximated; sinus of the mantle short, broad, obliquely ascending.

CHEMNITZ, Conch. Cab. vol. vi. p. 218. pl. 21. f. 210–212.

Mactra turgida, Gmelin.

Hab. Island of St. Thomas, West Indies; Cuming.

A plain smooth largely swollen species, of a whitish-yellow cast, tinged at the umboes with violet.

Species 22. (Mus. Cuming).

MACTRA ANTIQUATA. *Mact. testâ trigonâ, inflatâ, solidiusculâ, æquilaterali, extremitatibus subattenuatâ, transversim densè tenuissimè striatâ, pallidè spadiceâ, subtiliter albiradiatâ, ad umbones intensè violaceâ; lunulâ areâque subgrandibus, eleganter plicato-striatis, intus violascente; sinu pallii lato, rotundato.*

THE ANCIENT MACTRA. Shell triangular, inflated, rather solid, equilateral, subattenuated at the extremities, transversely densely very finely striated, light fawn-colour, finely white-rayed, deep violet at the umboes; lunule and area rather large, elegantly plicately striated, interior violet; sinus of the mantle broad, rounded.

SPENGLER, Skriv. Naturch. Selsk. vol. v. part 2. p. 102.

Mactra violacea australis, Chemnitz.

Mactra Chemnitzii, Gray.

Hab. Bay of Manilla; Cuming.

A more compressed and solid species than the preceding, faintly white-rayed, with very deep-stained violet umboes.

Species 23. (Mus. Cuming.)

MACTRA LARGILLIERTI. *Mact. testâ ovato-trigonâ, subæquilaterali, tumidâ, posticè hiante, sub epidermide nitente, olivaceo-flavâ, radiis angustis violaceis pictâ; areâ lunulâque planiusculis, eleganter plicato-striatis; ligamento externo valdè conspicuo, laminâ ab interno diviso.*

LARGILLIERT'S MACTRA. Shell ovately triangular, nearly equilateral, swollen, posteriorly gaping, olive-yellow, painted with narrow violet rays beneath a shining epidermis; area and lunule rather flat, elegantly plicately striated; outer ligament very conspicuous, divided by an internal lamina.

PHILIPPI, Zeitschrift für Malac. 1848, p. 162. Abbild. und Besch. Conch. vol. ii. p. 135. pl. 3. f. 1.

Hab. Gaboon, West Africa.

Of a peculiar swollen transverse form, covered with a shining yellow epidermis.

Species 24. (Mus. Cuming.)

MACTRA CUMINGII. *Mact. testâ ovato-trigonâ, tenui, ventricosissimâ, cordiformi, subæquilaterali, transversim irregulariter obsoletè striatâ, cuticulâ tenui flavescente fibrosâ pellucidâ indutâ, albâ, incarnato-roseo distanter radiatâ, latere antico rotundato, postico peculiariter compresso-rostrato; umbonibus tumidis, cordatis, subapproximatis; lunulâ latiusculâ, areâ angustâ, elongatâ; sinu pallii lato, brevissimo.*

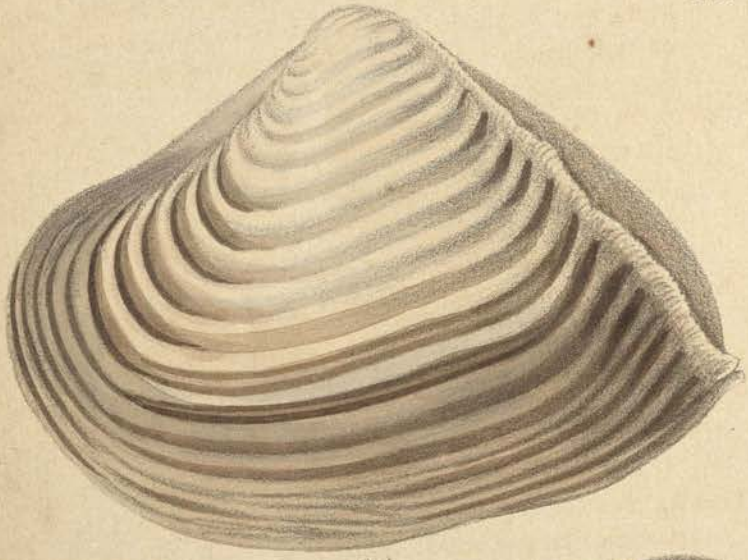
CUMING'S MACTRA. Shell ovately triangular, thin, very ventricose, heart-shaped, nearly equilateral, transversely irregularly obsoletely striated, covered with a thin yellowish fibrous pellucid cuticle, white, distantly rayed with flesh-rose, anterior side rounded, posterior peculiarly compressly beaked; umboes swollen, cordate, rather approximated; lunule rather broad, area narrow, elongated; sinus of the mantle broad, very short.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Moluccas.

An exquisitely delicate and characteristic species, light and ventricose, compressly beaked on the posterior side, ivory-white, marked with faint distant flesh-rose rays, and covered with a peculiar linear silky fibrous epidermis.

25.



26.

27.

28.

Sowerby, del. et lith.

F. Reeve, imp.

MACTRA.

PLATE VII.

Species 25. (Mus. Cuming).

MACTRA SUBROSTRATA. *Mact. testâ oblongo-transversâ, tumidâ, inæquilaterali, striis transversis lineisque radiantibus subtilibus impressis decussatâ, fulvo-griseâ; umbonibus violaceis; latere antico rotundato, postico subrostrato, hiante; lunulâ planiusculâ, areâ lanceolatâ, excavatâ.*

THE SLIGHTLY-BEAKED MACTRA. Shell oblong-transverse, swollen, inequilateral, decussated with transverse striæ and fine depressed radiating lines, fulvous grey; umboes violet; anterior side rounded, posterior slightly beaked, gaping; lunule rather flat, area lanceolate, excavated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Moluccas.

Very closely allied to *M. violacea*, but more oblong and swollen, and slightly beaked at the posterior extremity.

Species 26. (Mus. Cuming.)

MACTRA PLICATARIA. *Mact. testâ transversè subtrigonâ, compressâ, inæquilaterali, concentricè irregulariter subflexuosè plicato-costatâ, obliquè minutissimè striatâ, pellucido-albâ, diaphanâ, epidermide tenui fuscâ versus marginem indutâ; latere antico subproducto, rotundato, postico angulato, plicato-carinato; lunulâ lanceolato-ovatâ, areâ peramplâ, ambabus lævibus; umbonibus parvis.*

THE PLAITED MACTRA. Shell transversely subtriangular, compressed, inequilateral, concentrically plicately ribbed, obliquely very minutely striated, transparent white, diaphanous, covered towards the margin with a thin brown epidermis; anterior side rather produced, rounded, posterior angulated, plicately keeled; lunule lanceolately ovate, area very large, both smooth; umboes small.

LINNÆUS, Syst. Nat. (12th edit.) p. 1125.

Hab. Island of Sumatra.

This fine species is strongly plait-ribbed throughout, the plaits and interstices being very minutely obliquely striated across.

Species 27. (Mus. Cuming.)

MACTRA LÆVIS. *Mact. testâ ovato-triangulari, inæquilaterali, candidissimâ, nitente, irregulariter transversim minutissimè striatâ, ad umbones plicatâ, anticè posticèque latè plicatâ, in medio lævigatâ; latere antico subproducto, rotundato, postico truncato, plicato-angulato; lunulâ lanceolato-ovatâ, areâ peramplâ, excavatâ, ambabus lævibus; sinu pallii brevissimâ, apice obtuso, obliquè triangulari.*

THE SMOOTH MACTRA. Shell ovately triangular, inequilateral, very white, shining, irregularly transversely very minutely striated, plaited at the umboes, broadly plaited anteriorly and posteriorly, smooth in the middle; anterior side rather produced, rounded, posterior truncated, plicately angled; lunule lanceolately ovate, area very large, excavated, both smooth; sinus of the mantle very short, obtuse at the top, obliquely triangular.

CHEMNITZ, Conch. Cab. vol. vi. p. 214. pl. 21. f. 205 and 206.

Mactra striatula, pars, Gmelin.

Mactra subplicata, Lamarck.

Mactra Spengleri, Born (not of Linnæus).

Hab. Island of Samar, Philippines; Cuming.

Distinguished by a faint row of ripple-like plaits descending on each side the umboes.

Species 28. (Mus. Cuming.)

MACTRA HIANS. *Mact. testâ oblongo-ovatâ, subtrigonâ, tenuiculâ, inæquilaterali, transversim densè minutè striatâ, livido-albâ, fulvo-rufo radiatâ, ad umbones violaceo tinctâ; latere antico subtruncato, postico longiore, rotundato, hiante; lunulâ lanceolato-ovatâ, areâ angustâ, leviter rugoso-angulatâ.*

THE GAPING MACTRA. Shell oblong-ovate, subtriangular, rather thin, inequilateral, transversely densely minutely striated, livid white, rayed with fulvous-red, violet-tinged at the umboes; anterior side subtruncated, posterior longer, rounded, gaping; lunule lanceolately ovate, area narrow, slightly rugosely angled.

PHILIPPI, Abbild. und Besch. Conch. *Mactra*, pl. 2. f. 1.

Hab. Island of Mindanao, Philippines; Cuming.

A fine ruddy-rayed species, of rather thinnish substance, gaping at the posterior end.

29.

30.

31.

32.

MACTRA.

PLATE VIII.

Species 29. (Mus. Cuming.)

MACTRA ALATA. *Mact. testâ ovato-trigonâ, obliquâ, convexâ, inæquilaterali, transversim irregulariter minutè striatâ, candidissimâ, pellucidâ, epidermide tenui stramineâ versus marginem indutâ; latere antico subattenuato, postico latiore, angulato, ad angulum carinâ foliaceâ lamellari alato; umbonibus acutè angulatis; lunulâ indistinctâ, medio valdè elevatâ, areâ peramplâ, plano-excavatâ.*

THE WINGED MACTRA. Shell ovately triangular, oblique, convex, inequilateral, transversely irregularly minutely striated, very white, transparent, covered towards the margin with a light straw-coloured epidermis, anterior side subattenuated, posterior broader, angled, winged at the angle with a lamellar foliaceous keel; umboes sharply angled; lunule indistinct, much raised in the middle, area very large, flatly excavated.

SPENGLER, Skriv. Naturch. Selsk. vol. v. part 2. p. 99.
Mactra carinata, Lamarck.

Hab. West Columbia; Cuming.

Well distinguished by the conspicuous curly foliaceous keel, that rises on the angle in each valve bordering the posterior area.

Species 30. (Mus. Cuming.)

MACTRA OVATA. *Mact. testâ ovatâ, turgidâ, hiante, subæquilaterali, rudè transversim striatâ, squalidè fulvâ, ochraceo tinctâ, latere antico obtuso, postico subattenuato; umbonibus tumidis, oppositis, confertis; lunulâ areâque indistinctis, intus medio pallidè aurantiâ.*

THE OVATE MACTRA. Shell ovate, swollen, gaping, nearly equilateral, rudely transversely striated, dirty-fulvous, ochre-stained, anterior side obtuse, posterior subattenuated; umboes swollen, opposite, close; lunule and area indistinct, interior pale orange in the middle.

Spisula ovata, Gray, Fauna of New Zealand, p. 251.

Hab. New Zealand.

A dull swollen shell, irregularly rudely striated, tinged with orange in the interior.

Species 31. (Mus. Cuming.)

MACTRA EXIMIA. *Mact. testâ ovato-transversâ, æquilaterali, extremitatibus ambabus æqualiter obtusis, transversim minutissimè striatâ, purpurascente-cinereâ, incarnato-radiatâ, epidermide fibrosâ fulvâ versus marginem indutâ; lunulâ areâque amplis, subindistinctis, in medio elevatis, eleganter plicato-liratis; umbonibus tumidiusculis, approximatis; sinu pallii brevissimo, lato, regulariter arcuato.*

THE PRETTY MACTRA. Shell ovately transverse, equilateral, both extremities equally obtuse, transversely very minutely striated, purple-ash, flesh-rayed, covered towards the margins with a fibrous fulvous epidermis; lunule and area large, rather indistinct, raised in the middle, elegantly plicately ridged; umboes rather swollen, approximated; sinus of the mantle very short, broad, regularly arched.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Moreton Bay, Australia; Strange.

A very characteristic species, minutely striated in the middle, whilst on the area and lunule it is strongly elegantly plicately ridged.

Species 32. (Mus. Cuming.)

MACTRA EDULIS. *Mact. testâ ovato-trigonâ, crassâ, solidâ, æquilaterali, utrinque subangulatâ, sordidè albâ, ferrugineo-rufo interdum hic illic tinctâ, plus minus erosâ, epidermide olivaceâ partim indutâ; lunulâ areâque indistinctis, medio subelevatis; umbonibus tumidiusculis, oppositis; sinu pallii trigono, obtuso, brevi, horizontali.*

THE EATABLE MACTRA. Shell ovately triangular, thick, solid, equilateral, slightly angled on both sides, dirty-white, sometimes tinged here and there with rust-red, more or less eroded, partially covered with an olive epidermis; lunule and area indistinct, slightly raised in the middle; umboes rather swollen, opposite; sinus of the mantle triangular, obtuse, short, horizontal.

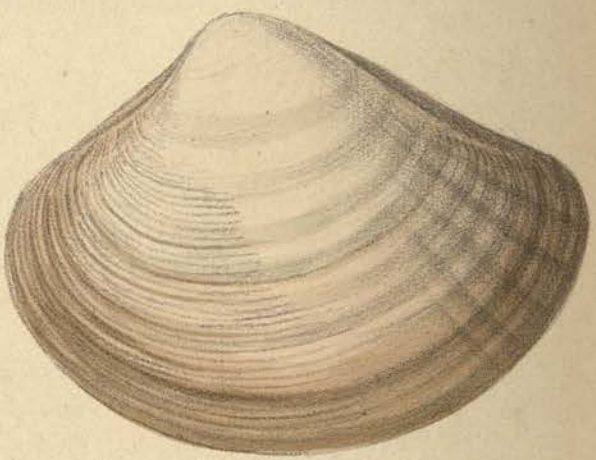
KING, Zoological Journal, vol. v. p. 335.
Mulinia edulis, Gray.
Mulinia bicolor, Gray.
Mulinia typica, Gray.

Hab. Patagonia and Straits of Magellan.

A dingy suberoded solid shell, extremely variable in form according to its variety of growth.

33.

34.



35.

36.

Sowerby, del. et lith.

F. Reeve, imp.

MACTRA.

PLATE IX.

Species 33. (Mus. Cuming.)

MACTRA SAYI. *Mact. testâ transversim ovatâ, latè subtrigonâ, compressiusculâ, subæquilaterali, solidiusculâ, utroque latere æqualiter declivi et obtuso, infernè regulariter arcuato, sub epidermide flavescente cretaceo-albâ, lævigatâ, substriatâ; umbonibus minimis, acutis, subobliquis; areâ lunulâque indistinctis.*

SAY'S MACTRA. Shell transversely ovate, broadly subtriangular, rather compressed, nearly equilateral, rather solid, both sides equally slanting and obtuse, regularly arched at the lower part, chalk-white beneath a yellowish epidermis, smooth, finely substriated; umboes very small, acute, a little oblique; area and lunule indistinct.

Spisula Sayi, Gray, Ann. and Mag. Nat. Hist. 1837, p. 373.

Hab. Florida.

A stone-white compressed shell, covered with a strong yellowish-olive epidermis.

Species 34. (Mus. Cuming.)

MACTRA ANGULATA. *Mact. testâ transversim ovatâ, turgidâ, trigonâ, acutè angulatâ, inæquilaterali, tenuistriatâ, calcareo-albâ, nitente, epidermide tenui stramineâ indutâ, latere antico rotundato, postico angulato-rostrato; lunulâ indistinctâ, areâ peramplâ, medio elevatâ; umbonibus tumidis, acutè angulatis.*

THE ANGLED MACTRA. Shell transversely ovate, turgid, triangular, sharply angled, inequilateral, finely striated, chalk-white, shining, covered with a thin straw-coloured epidermis, anterior side rounded, posterior angularly beaked; lunule indistinct, area very large, raised in the middle; umboes swollen, sharply angled.

GRAY, MS. in Brit. Mus.

Hab. Gulf of California.

Allied to *M. Donaciformis*, though uniformly of larger size. It is chiefly characterized by the large broad concavely angled growth of the posterior area.

Species 35. (Mus. Cuming.)

MACTRA OLORINA. *Mact. testâ transversim ovatâ, trigonâ, tumidiusculâ, inæquilaterali, lævigatâ, nitente, anticè densè transversim striatâ, incarnato-albâ, epidermide stramineâ prope marginem indutâ, latere antico rotundato, postico rostrato; umbonibus subcompressis; lunulâ oblongo-ovatâ, striatâ, areâ elongatâ.*

THE SWAN-LIKE MACTRA. Shell transversely ovate, triangular, rather swollen, inequilateral, smooth, shining, anteriorly closely transversely ridged, flesh-white, covered near the margin with a straw-coloured epidermis, anterior side rounded, posterior beaked; umboes subcompressed; lunule oblong-ovate, striated, area elongated.

PHILIPPI, Abbild. und Besch. Conch. vol. ii. p. 72. pl. 2. f. 2.

Hab. Red Sea.

A delicate flesh-white polished shell, densely ridged on the anterior side only, and peculiarly beaked at the posterior extremity.

Species 36. (Mus. Cuming.)

MACTRA OVALIS. *Mact. testâ transversim ovatâ, compressiusculâ, subæquilaterali, transversim rudè striatâ, sordidè albâ, epidermide fulvo-olivaceâ crassiusculâ indutâ; umbonibus compressis, approximatis; lunulâ areâque indistinctis; sinu pallii profundo.*

THE OVAL MACTRA. Shell transversely ovate, rather compressed, nearly equilateral, transversely rudely striated, dirty-white, covered with a rather thick fulvous-olive epidermis; umboes compressed, approximated; lunule and area indistinct; sinus of the mantle deep.

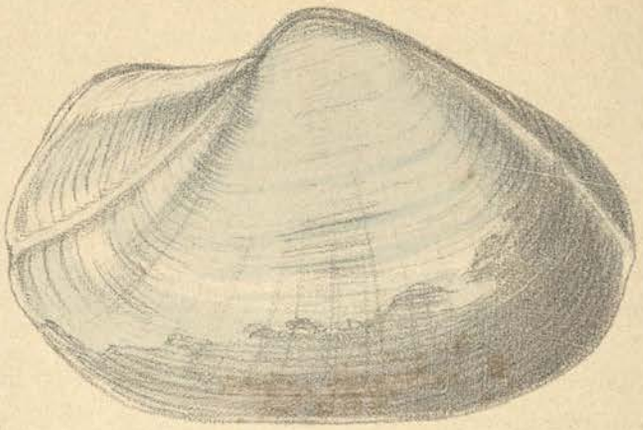
SAY, Journ. Acad. Nat. Sci. Philadelphia, vol. ii. p. 309.

Spisula similis, Gray.

Mactra ponderosa, Philippi.

Hab. Massachusetts, United States.

More truly ovate than *M. Sayi*, and of rougher growth, with the lunule and area much less distinct. It attains a much larger size than is represented in the accompanying Plate.



37.

38.

39.

40.

41.

42.

43.

Sowerby, del. et. lith.

F. Reeve, imp.

MACTRA.

PLATE X.

Species 37. (Mus. Cuming.)

MACTRA CYPRINUS. *Mact. testâ ovato-transversâ, æquilaterali, tenui, fragili, albâ, diaphanâ, traversim striatâ, ad umbones gibbâ, anticè declivi et obtusâ, posticè dilatatâ, subtruncatâ, valdè hiante, lineâ prominente obliquè decurrente, latere antico plano, postico prominente, aperto.*

THE CARP MACTRA. Shell ovately transverse, equilateral, thin, fragile, white, diaphanous, transversely striated, gibbous at the umboes, anteriorly slanting and obtuse, posteriorly dilated, subtruncated, very much gaping, with a prominent line running down obliquely, anterior side flat, posterior prominent and open.

GRAY, Wood, Index Test. pl. 1. f. 1.
Lutraria cyprina, Gray.
Cypricia cyprina, Gray.
Hab. ——?

An interesting semitransparent fragile species, having somewhat the aspect of *Anatina*.

Species 38. (Mus. Cuming.)

MACTRA CARINULATA. *Mact. testâ trigono-transversâ, tumidâ, æquilaterali, utrinque acutè angulatâ, tenuissimè striatâ, albâ, epidermide tenui fulvâ indutâ; lunulâ areâque indistinctis, grandibus, medio subelevatis; umbonibus angulatis; sinu pallii angusto, profundo, obliquè ascendente.*

THE FINELY-KEELED MACTRA. Shell triangularly transverse, swollen, equilateral, sharply angled on both sides, very finely striated, white, covered with a thin fulvous epidermis; lunule and area indistinct, large, slightly raised in the middle; umboes angled; sinus of the mantle narrow, deep, obliquely ascending.

DESHAYES, Pro. Zool. Soc. 1854.
Hab. Gulf of California.

A shell of comparatively small size and of light growth, partaking of the typical characters of *M. Donaciformis*, and from the same locality.

Species 39. (Mus. Cuming.)

MACTRA POLITA. *Mact. testâ trigono-ovatâ, subæquilaterali, solidâ, cinereo-fuscescente, incarnato tinctâ, promiscuè fasciatâ, densè striatâ, latere antico rotundato, postico subflexuoso-angulato; umbonibus minimis, violaceis; lunulâ indistinctâ, areâ magnâ, medio subelevatâ.*

THE POLISHED MACTRA. Shell triangularly ovate, nearly equilateral, solid, light ash-brown, flesh-stained, promiscuously banded, densely striated, anterior side rounded, posterior slightly flexuously angled; umboes very small, violet; lunule indistinct, area large, slightly raised in the middle.

CHEMNITZ, Conch. Cab. vol. vi. p. 222. pl. 22. f. 216, 217.
Mactra glabrata, Schroeter.
Mactra australis, Lamarck.
Hab. Swan River.

Thick-set with shining striæ, and of a light ash-colour, promiscuously banded, with the umboes violet-tipped.

Species 40. (Mus. Brit.)

MACTRA SPENGLERI. *Mact. testâ triangulari, transversâ, æquilaterali, cuneiformi, transversim obsoletè striatâ, albo-lutescente, sub epidermide squalidè fusculâ; umbonibus minimis, distantissimis, fossulâ ligamenti triangulari, exterius apertâ, separatis; lunulâ magnâ, convexiusculâ; latere postico plano, lato, angustâ, acutâ, circumscriptâ; valvis solidiusculis, intus albis; dentibus lateralibus brevibus, cardine approximatis; sinu pallii profundo, obtuso, horizontali.*

SPENGLER'S MACTRA. Shell triangular, transverse, equilateral, wedge-shaped, transversely obsoletely striated, whitish-yellow, beneath a dirty light brown epidermis; umboes very small, very distant, separated by a ligamentary pit which is triangular, and outwardly open; lunule large, rather convex, posterior side flat, broad, narrow, sharp, circumscribed; valves rather solid, white within; lateral teeth short, approximating to the hinge; sinus of the mantle deep, obtuse, horizontal.

LINNÆUS, Syst. Nat. (12th edit.) p. 1125.
Schizodesma Spengleri, Gray.
Hab. Cape of Good Hope.

Remarkably distinguished from all other species by its sharp wedge-like form, and by its outwardly seen excavated crescent-like ligament pit.

Species 41. (Mus. Cuming.)

MACTRA MITIS. *Mact. testâ trigono-ovatâ, tumidâ, tenuiculâ, subæquilaterali, densè tenuistriatâ, incarnato-spadiceâ, lateribus rotundatis, postico supernè declivi; lunulâ areâque subangustis, eleganter striatis; umbonibus parvis, approximatis.*

THE RIPE MACTRA. Shell triangularly ovate, swollen, rather thin, nearly equilateral, very closely finely striated, flesh-tinged, fawn-colour, sides rounded, posterior slanting at the upper part; lunule and area rather narrow, elegantly striated; umboes small, approximated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Mouth of the Gambia, West Africa.

A very simple character, and of a light flesh-tinged fawn-colour.

Species 42. (Mus. Cuming.)

MACTRA TRUNCATA. *Mact. testâ trigonâ, crassâ, solidâ, æquilaterali, sordidè albâ, zonis transversis fulvis subdistantibus interdum notatâ, latere antico rotundato, postico subangulato et truncato; umbonibus minimis, angulatis, approximatis; lunulâ indistinctâ, areâ subamplâ, ambabus medio subelevatis.*

THE TRUNCATED MACTRA. Shell triangular, thick, solid, equilateral, dead-white, sometimes marked with transverse distant fulvous zones, anterior side rounded, posterior slightly angled and truncated; umboes very small, angled, approximated; lunule indistinct, area rather large, both slightly raised in the middle.

MONTAGU, Test. Brit. sup. p. 34.

Pectunculus crassiusculus, Lister.

Trigonella zonaria, Da Costa.

Venus rugosa, Gmelin.

Mactra subtruncata, Donovan.

Mactra crassatella, Lamarck.

Spisula truncata, Gray.

Hab. Britain.

A simple subtruncated triangularly ovate shell, of solid growth, of a dead white cast, more or less covered with a thin brownish epidermis.

Species 43. (Mus. Brit.)

MACTRA ELONGATA. *Mact. testâ transversim elongatâ, trigonâ, crassâ, solidâ, inæquilaterali, sordidè albâ, epidermide fuscâ indutâ, transversim rudè striatâ, striis ad extremitates plicato-rugosis, latere antico brevi, truncato, postico duplo longiore, attenuato; umbonibus compressis, confertis; lunulâ excavatâ, subindistinctâ, areâ longâ, angustâ.*

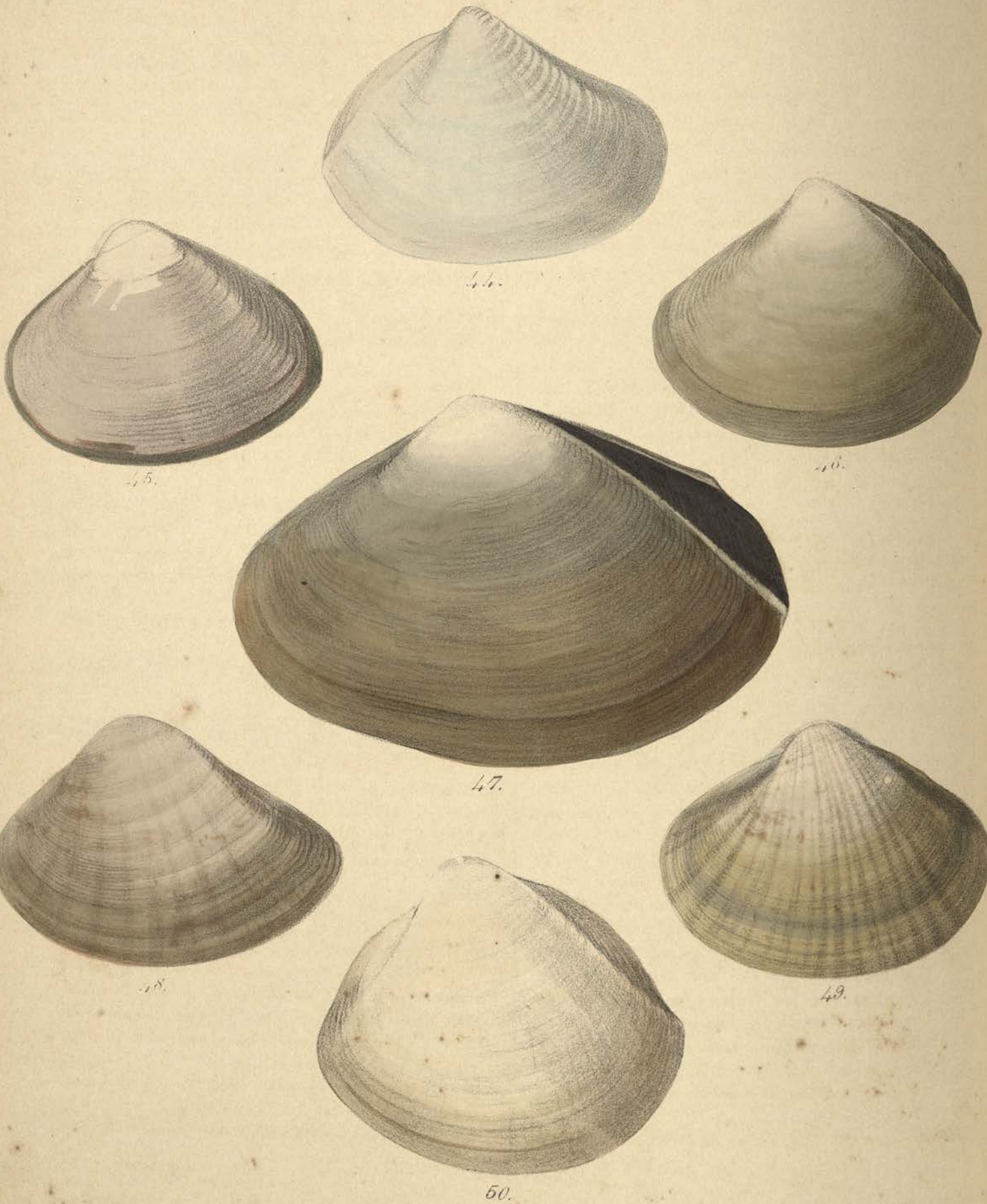
THE ELONGATED MACTRA. Shell transversely elongated, triangular, thick, solid, inequilateral, dead-white, covered with a brown epidermis, transversely rudely striated, striæ plicately rugose at the extremities, anterior side short and truncated, posterior twice as long, attenuated; umboes compressed, close-set; lunule excavated, rather indistinct, area long and narrow.

QUOY and GAIMARD, Voy. de l'Astrolabe, pl. 111. f. 5–8.

Spisula elongata, Gray.

Hab. New Zealand.

A shell of solid growth, and of unusually oblong transverse form.



44.

45.

46.

47.

48.

49.

50.

Sowerby, del et lith.

F. Reeve, imp.

MACTRA.

PLATE XI.

Species 44. (Mus. Cuming.)

MACTRA VITREA. *Mact. testâ trigonâ, turgidulâ, tenuissimâ, vitreo-albâ, inæquilaterali, utringue hiante, latere antico brevi, subcompressâ, lirâ obsoletâ descendente, postico producto, rotundato, eleganter corrugato-plicato; umbonibus angulatis, nitidè plicato-striatis; lunulâ vix nullâ, medio elevatâ, areâ subamplâ, cordiformi, plano-excavatâ.*

THE GLASSY MACTRA. Shell triangular, rather swollen, very thin, diaphanous, glassy-white, inequilateral, gaping at both ends, anterior side short, rather compressed, with an obsolete ridge descending, posterior produced, rounded, elegantly wrinkle-plaited; umboes angled, neatly plicately striated; lunule scarcely any, raised in the middle, area rather large, heart-shaped, flatly excavated.

GRAY, Ann. and Mag. Nat. Hist. 1837, p. 372.

Hab. Moluccas.

A delicate pellucid white shell, elegantly wrinkle-plaited down the posterior side.

Fig. 45. (Mus. Cuming.)

The shell here figured represents the *Mactra typicus*, Gray, which proves to be a variety of *M. edulis*.

Species 46. (Mus. Cuming.)

MACTRA NITIDA. *Mact. testâ ovato-trigonâ, æquilaterali, turgidulâ, anticè obtusâ, posticè subangulatâ, latere postico depresso, angulo acutiusculo circumscripto, candidissimâ, nitente, sub epidermide flavicante, posticè squalidiore; umbonibus parvis; lunulâ magnâ, eleganter sulcatâ, ovali, fossulâ ligamenti exterius apertâ; valvis intus albis; sinu pallii brevi, trigono.*

THE SHINING MACTRA. Shell ovately triangular, equilateral, rather swollen, obtuse anteriorly, slightly angled posteriorly, posterior side depressed, circumscribed into a rather sharp angle, very white, shining, beneath a yellowish epidermis, duller on the posterior side; umboes small; lunule large, elegantly grooved, oval, ligamentary pit outwardly open; valves white within; sinus of the mantle short, triangular.

Mactra nitida, Schroeter, Einl. Conch. vol. iii. pl. 8. f. 2.

Mactra straminea, Lamarck.

Schizodesma nitida, Gray.

Hab. Senegal.

Of a shining white substance, covered with a thin shining horny epidermis, and peculiarly sharply angled down the posterior side.

Species 47. (Mus. Cuming.)

MACTRA FRAGILIS. *Mact. testâ ovato-oblongâ, subæquilaterali, compressâ, transversim tenuè et irregulariter striatâ, albâ, sub epidermide fibrosâ griseo-flavescente, in latere postico nigricante, latere antico obtuso, paululum attenuato, postico subtruncato, hiante, bilirato, liris subdistantibus; umbonibus compressis, approximatis; lunulâ areâque elongatis, angustis.*

THE FRAGILE MACTRA. Shell ovately oblong, nearly equilateral, compressed, transversely finely and irregularly striated, white, beneath a greyish-yellow fibrous epidermis, blackish on the posterior side, anterior side obtuse, a little attenuated, posterior subtruncated, gaping, two-ridged, ridges rather distant; umboes compressed, approximated; lunule and area elongated, narrow.

CHEMNITZ, Conch. Cab. vol. vi. p. 236. pl. 24. f. 235.

Mactra Brasiliana, Lamarck.

Mactra oblonga, Say.

Spisula fragilis, Gray.

Hab. Honduras; Dyson.

Of rather slight form, characterized by a space down the posterior side between two ridges, in which the epidermis is darker than on the rest of the shell.

Species 48. (Mus. Cuming.)

MACTRA SEMISULCATA. *Mact. testâ transversim ovatâ, tumidâ, solidiusculâ, inæquilaterali, albidâ, nitente, epidermide tenui stramineâ partim indutâ, latere antico rotundato, transversim sulcato, sulcis medium versus evanidis, postico conspicuè rostrato; lunulâ areâque latiusculis, plicato-striatis; umbonibus tumidis, politis, approximatis.*

THE HALF-GROOVED MACTRA. Shell transversely ovate, swollen, rather solid, inequilateral, whitish, shining, partially covered with a thin straw-coloured epider-

Species 41. (Mus. Cuming.)

MACTRA MITIS. *Mact. testâ trigono-ovatâ, tumidâ, tenuiculâ, subæquilaterali, densè tenuistriatâ, incarnato-spadiceâ, lateribus rotundatis, postico supernè declivi; lunulâ areâque subangustis, eleganter striatis; umbonibus parvis, approximatis.*

THE RIPE MACTRA. Shell triangularly ovate, swollen, rather thin, nearly equilateral, very closely finely striated, flesh-tinged, fawn-colour, sides rounded, posterior slanting at the upper part; lunule and area rather narrow, elegantly striated; umboes small, approximated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Mouth of the Gambia, West Africa.

A very simple character, and of a light flesh-tinged fawn-colour.

Species 42. (Mus. Cuming.)

MACTRA TRUNCATA. *Mact. testâ trigonâ, crassâ, solidâ, æquilaterali, sordidè albâ, zonis transversis fulvis subdistantibus interdum notatâ, latere antico rotundato, postico subangulato et truncato; umbonibus minimis, angulatis, approximatis; lunulâ indistinctâ, areâ subamplâ, ambabus medio subelevatis.*

THE TRUNCATED MACTRA. Shell triangular, thick, solid, equilateral, dead-white, sometimes marked with transverse distant fulvous zones, anterior side rounded, posterior slightly angled and truncated; umboes very small, angled, approximated; lunule indistinct, area rather large, both slightly raised in the middle.

MONTAGU, Test. Brit. sup. p. 34.

Pectunculus crassiusculus, Lister.

Trigonella zonaria, Da Costa.

Venus rugosa, Gmelin.

Mactra subtruncata, Donovan.

Mactra crassatella, Lamarck.

Spisula truncata, Gray.

Hab. Britain.

A simple subtruncated triangularly ovate shell, of solid growth, of a dead white cast, more or less covered with a thin brownish epidermis.

Species 43. (Mus. Brit.)

MACTRA ELONGATA. *Mact. testâ transversim elongatâ, trigonâ, crassâ, solidâ, inæquilaterali, sordidè albâ, epidermide fuscâ indutâ, transversim rudè striatâ, striis ad extremitates plicato-rugosis, latere antico brevi, truncato, postico duplo longiore, attenuato; umbonibus compressis, confertis; lunulâ excavatâ, subindistinctâ, areâ longâ, angustâ.*

THE ELONGATED MACTRA. Shell transversely elongated, triangular, thick, solid, inequilateral, dead-white, covered with a brown epidermis, transversely rudely striated, striæ plicately rugose at the extremities, anterior side short and truncated, posterior twice as long, attenuated; umboes compressed, close-set; lunule excavated, rather indistinct, area long and narrow.

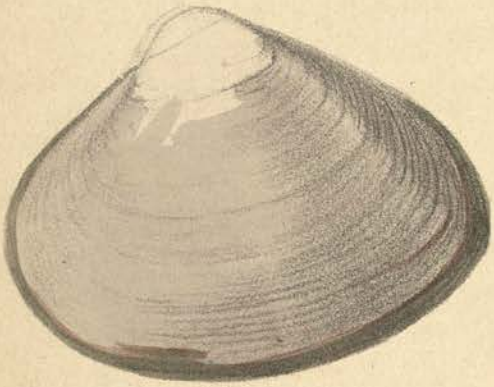
QUOY and GAIMARD, Voy. de l'Astrolabe, pl. 111. f. 5–8.

Spisula elongata, Gray.

Hab. New Zealand.

A shell of solid growth, and of unusually oblong transverse form.

44.



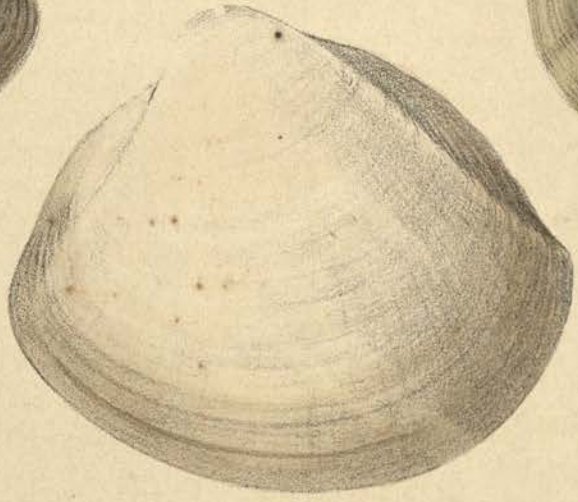
45.

46.

47.

48.

49.



50.

Sowerby, del et lith.

F. Reeve, imp.

MACTRA.

PLATE XI.

Species 44. (Mus. Cuming.)

MACTRA VITREA. *Mact. testâ trigonâ, turgidulâ, tenuissimâ, vitreo-albâ, inæquilaterali, utrinque hiante, latere antico brevi, subcompressâ, lirâ obsoletâ descendente, postico producto, rotundato, eleganter corrugato-plicato; umbonibus angulatis, nitidè plicato-striatis; lunulâ vix nullâ, medio elevatâ, areâ subamplâ, cordiformi, plano-excavatâ.*

THE GLASSY MACTRA. Shell triangular, rather swollen, very thin, diaphanous, glassy-white, inequilateral, gaping at both ends, anterior side short, rather compressed, with an obsolete ridge descending, posterior produced, rounded, elegantly wrinkle-plaited; umboes angled, neatly plicately striated; lunule scarcely any, raised in the middle, area rather large, heart-shaped, flatly excavated.

GRAY, Ann. and Mag. Nat. Hist. 1837, p. 372.

Hab. Moluccas.

A delicate pellucid white shell, elegantly wrinkle-plaited down the posterior side.

Fig. 45. (Mus. Cuming.)

The shell here figured represents the *Mactra typicus*, Gray, which proves to be a variety of *M. edulis*.

Species 46. (Mus. Cuming.)

MACTRA NITIDA. *Mact. testâ ovato-trigonâ, æquilaterali, turgidulâ, anticè obtusâ, posticè subangulatâ, latere postico depresso, angulo acutiusculo circumscripto, candidissimâ, nitente, sub epidermide flavicante, posticè squalidiore; umbonibus parvis; lunulâ magnâ, eleganter sulcatâ, ovali, fossulâ ligamenti exterius apertâ; valvis intus albis; sinu pallii brevi, trigono.*

THE SHINING MACTRA. Shell ovately triangular, equilateral, rather swollen, obtuse anteriorly, slightly angled posteriorly, posterior side depressed, circumscribed into a rather sharp angle, very white, shining, beneath a yellowish epidermis, duller on the posterior side; umboes small; lunule large, elegantly grooved, oval, ligamentary pit outwardly open; valves white within; sinus of the mantle short, triangular.

Mactra nitida, Schroeter, Einl. Conch. vol. iii. pl. 8. f. 2.
Mactra straminea, Lamarck.
Schizodesma nitida, Gray.

Hab. Senegal.

Of a shining white substance, covered with a thin shining horny epidermis, and peculiarly sharply angled down the posterior side.

Species 47. (Mus. Cuming.)

MACTRA FRAGILIS. *Mact. testâ ovato-oblongâ, subæquilaterali, compressâ, transversim tenuè et irregulariter striatâ, albâ, sub epidermide fibrosâ griseo-flavescente, in latere postico nigricante, latere antico obtuso, paululum attenuato, postico subtruncato, hiante, bilirato, liris subdistantibus; umbonibus compressis, approximatis; lunulâ areâque elongatis, angustis.*

THE FRAGILE MACTRA. Shell ovately oblong, nearly equilateral, compressed, transversely finely and irregularly striated, white, beneath a greyish-yellow fibrous epidermis, blackish on the posterior side, anterior side obtuse, a little attenuated, posterior subtruncated, gaping, two-ridged, ridges rather distant; umboes compressed, approximated; lunule and area elongated, narrow.

CHEMNITZ, Conch. Cab. vol. vi. p. 236. pl. 24. f. 235.
Mactra Brasiliana, Lamarck.
Mactra oblonga, Say.
Spisula fragilis, Gray.

Hab. Honduras; Dyson.

Of rather slight form, characterized by a space down the posterior side between two ridges, in which the epidermis is darker than on the rest of the shell.

Species 48. (Mus. Cuming.)

MACTRA SEMISULCATA. *Mact. testâ transversim ovatâ, tumidâ, solidiusculâ, inæquilaterali, albidâ, nitente, epidermide tenui stramineâ partim indutâ, latere antico rotundato, transversim sulcato, sulcis medium versus evanidis, postico conspicuè rostrato; lunulâ areâque latiusculis, plicato-striatis; umbonibus tumidis, politis, approximatis.*

THE HALF-GROOVED MACTRA. Shell transversely ovate, swollen, rather solid, inequilateral, whitish, shining, partially covered with a thin straw-coloured epider-

mis, anterior side rounded, transversely grooved, grooves fading in the middle, posterior conspicuously beaked; lunule and area rather broad, plicately striated; umboes swollen, polished, close.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Australia.

An interesting half-grooved anteriorly beaked shell, having very much the form of *Crassatella*.

Species 49. (Mus. Cuming.)

MACTRA ADANSONI. *Mact. testâ ovato-oblongâ, transversâ, turgidulâ, subæquilaterali, albo-flavicante, nitente, pallidè violaceo angustè multiradiatâ, latere antico regulariter striato, medio et latere postico lævigatis; lunulâ areâque ovatis, parviusculis, eleganter striatis; umbonibus subangulatis, violaceis.*

ADANSON'S MACTRA. Shell ovately oblong, transverse, rather swollen, nearly equilateral, whitish-yellow, shining, narrowly many-rayed with pale violet, anterior side regularly striated, middle and posterior side smooth; lunule and area ovate, rather small, elegantly striated; umboes rather angular, violet-tipped.

PHILIPPI, Zeitschrift für Malac. 1848, p. 152.

Le Lisor, Adanson.

**Mactra lilacea?* Lamarck.

Hab. Senegal.

Approximating in some measure to *M. stultorum*, but more transverse, and more regularly violet-rayed.

Species 50. (Mus. Cuming.)

MACTRA CORALLINA. *Mact. testâ trigono-suborbiculari, subæquilaterali, tenui, tumidiusculâ, eburneâ, zonulis nonnullis transversalibus luteis aut rufescentibus notatâ, latere antico leviter concavo-compresso; lunulâ indistinctâ, postico declivi, obtusè angulato; areâ perampla convexâ; umbonibus angulatis, confertis.*

THE CORAL MACTRA. Shell triangularly suborbicular, nearly equilateral, thin, rather swollen, ivory-white, marked with a few yellowish transverse bands, anterior side slightly concavely compressed, with the lunule indistinct, posterior side slanting, obtusely angled; area very large, convex; umboes angular, close.

LINNÆUS, Syst. Nat. (12th edit.) p. 1125.

Mactra lactea, Chemnitz.

Hab. Venice, Sicily.

A triangularly rounded shining white species, concavely compressed on one side and convexly angled on the other.

51.

52.

53.

54.

55.

56.

57.

Sowerby, del. et lith.

F. Reeve, imp.

MACTRA.

PLATE XII.

Species 51. (Mus. Cuming.)

MACTRA ACHATINA. *Mact. testâ ovato-oblongâ, ellipticâ, compressâ, subæquilaterali, pallidè violaceâ, ad umbones purpurascentibus, maculis radiisque interruptis lacteis pictâ; areâ lunulâque indistinctis.*

THE AGATE MACTRA. Shell ovately oblong, elliptical, compressed, nearly equilateral, pale violet, purple at the umboes, painted with milk-white spots and interrupted rays; area and lunule indistinct.

CHEMNITZ, Conch. Cab. vol. ii. p. 218. f. 1957.

Mactra maculosa, Lamarck.

Mactra adspersa, Dunker.

Mactra maculata, Hanley.

Hab. Philippine Islands.

One of the most richly-coloured species of the genus, being profusely mottled and rayed throughout with violet and flesh-rose.

Species 52. (Mus. Cuming.)

MACTRA FASCIATA. *Mact. testâ ovato-trigonâ, inæquilaterali, tumidâ, lævigatâ, opaco-albâ, zonis violaceis distantibus notatâ; umbonibus rufescente-violaceis; latere antico obtuso, leviter concavo-impresso, postico obtusè angulato; lunulâ indistinctâ, areâ subamplâ.*

THE BANDED MACTRA. Shell ovately triangular, inæquilateral, swollen, smooth, opake-white, marked with distant violet zones; umboes reddish-violet; anterior side obtuse, slightly concavely impressed, posterior obtusely angled; lunule indistinct, area rather large.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 101.

Hab. ——?

A species of very simple aspect, but well distinguished by the characters above noted.

Species 53. (Mus. Cuming.)

MACTRA PURA. *Mact. testâ ovato-trigonâ, depressiusculâ, crassâ, solidâ, æquilaterali, medio subgibbâ, transversim inæqualiter obsoletè striatâ, candidissimâ, sub epidermide tenui flavescente, latere antico obtuso, postico subangulato; umbonibus brevibus, depressis; lunulâ subindistinctâ, plicato-striatâ, areâ convexâ.*

THE PURE MACTRA. Shell ovately triangular, rather depressed, thick, solid, equilateral, rather gibbous in the middle, transversely unequally obsoletely striated, very white, beneath a thin yellowish epidermis, anterior side obtuse, posterior slightly angulated; umboes short, depressed; lunule rather indistinct, plicately striated, area convex.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Australia.

A solid ivory-white shell, partially covered with a straw-coloured fibrous epidermis.

Species 54. (Mus. Cuming.)

MACTRA COMPLANATA. *Mact. testâ transversim trigonâ, depressâ, æquilaterali, securiformi, lævigatâ, albâ, utroque latere æqualiter obtusâ, margine inferiore acuto, regulariter arcuato; lunulâ magnâ, elongato-lanceolatâ, sulco impresso circumdatâ, in medio prominente, areâ elongatâ, ovato-lanceolatâ, impressâ, planâ, angulo duplici circumscriptâ; umbonibus parvis, recurvis, uncinatis; valvis tenuibus, intus candidissimis; laminâ cardinali latâ, tenui; dentibus lateralibus brevibus, lamellosis, triangularibus, abruptè truncatis; sinu pallii brevi, semiellipticâ, descendente.*

THE SMOOTH MACTRA. Shell transversely triangular, depressed, equilateral, hatchet-shaped, smooth, white, equally obtuse on each side, lower margin sharp, regularly arched; lunule large, elongately lanceolate, surrounded with an impressed groove, prominent in middle, area elongated, ovately lanceolate, impressed, flat, circumscribed by a double angle; umboes small, recurved, hooked; valves thin, very white within; hinge lamina broad, thin; lateral teeth short, lamellous, triangular, abruptly truncated; sinus of the mantle short, semielliptic, descending.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Indian Ocean.

A singularly broad depressed species, with somewhat of a *Lucina* aspect.

Species 55. (Mus. Cuming.)

MACTRA SEMISTRIATA. *Mact. testâ transversim ovatâ, tumidâ, gibbosâ, subæquilaterali, lateribus rotundatis, postico paulo longiore, livido-albâ, nitente, ad umbones purpurascente, epidermine tenui partim indutâ, antice*

sulcatâ, posticè lævigatâ; lunulâ areâque latiusculis, plicato-striatis.

THE HALF-STRIATED MACTRA. Shell transversely ovate, swollen, gibbous, nearly equilateral, sides rounded, the posterior rather the longer, livid white, shining, purplish at the umboes, partially covered with a thin straw-coloured epidermis, anteriorly grooved, striated, posteriorly smooth; lunule and area rather broad, plicately striated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Of rather subglobose form, groove-striated over the anterior half of the shell.

Species 56. (Mus. Cuming.)

MACTRA MACULATA. *Mact. testâ trigono-ovatâ, tenuiculâ, compressâ, inæquilaterali, transversim irregulariter tenuistriatâ, albidâ, ferrugineo-fuscescente marmoratâ, posticè castaneo-tinctâ, latere antico brevi, rotundato, postico declivi, attenuato-angulato; lunulâ subindistinctâ, areâ oblongâ, punctulatâ; umbonibus parvis, approximatis.*

THE SPOTTED MACTRA. Shell triangularly ovate, rather thin, compressed, inequilateral, transversely finely irregularly striated, whitish, mottled with light rust-brown, posteriorly chestnut-tinged; anterior side short, rounded, posterior slanting, attenuately angled; lunule rather indistinct, area oblong, dotted; umboes small, close.

CHEMNITZ, Conch. vol. vi. pl. 41. f. 208, 209.

Mactra squalida, Lamarck.

Mactra setosa, Quoy.

Hab. Philippine Islands; Cuming.

Of rather compressed form, produced on the posterior side into a subattenuated angle.

Species 57. (Mus. Cuming.)

MACTRA VIOLACEA. *Mact. testâ ovato-trigonâ, æquilaterali, tenui, fragili, posticè paululum hiante, undique intensè violaceâ, transversim densè tenuissimè striatâ, epidermide tenui versus marginem; lunulâ areâque lanceolato-ovatis; umbonibus approximatis.*

THE VIOLET MACTRA. Shell ovately triangular, equilateral, thin, fragile, a little gaping at the posterior end, everywhere deep violet, transversely densely very finely striated, with a slight epidermis towards the margin; lunule and area lanceolately ovate; umboes close.

CHEMNITZ, Conch. vol. vi. p. 220. pl. 22. f. 213, 214.

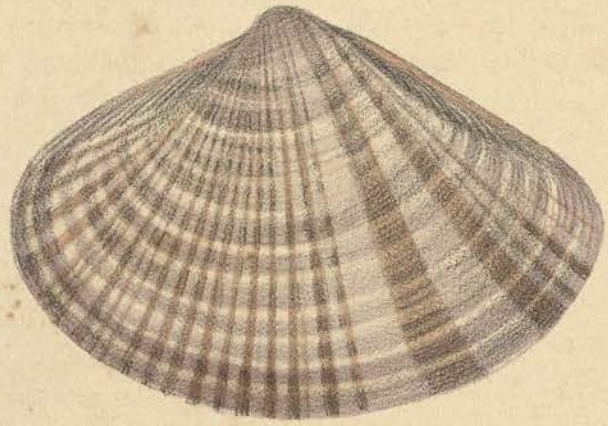
Hab. Malacca.

A shell of light structure, always distinguished by its uniform deep violet colouring within and without.

58

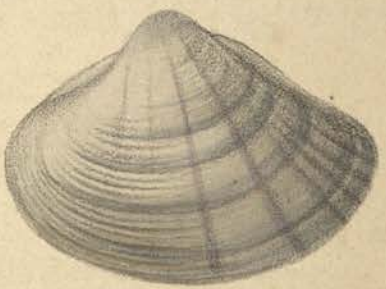
59

60



61

62



63

64

Sowerby del et lith.

Vincent Brooks Imp.

MACTRA.

PLATE XIII.

Species 58. (Mus. Cuming.)

MACTRA ORNATA. *Mact. testâ ovato-transversâ, compressiusculâ, tenuiculâ, æquilaterali, lævigatâ, substriatâ, anticè obtusâ, posticè declivi et obliquè truncatâ, ad umbones purpurascente-roseâ, in medio roseo obscurè radiatâ, maculis albis marmoratâ; umbonibus parvis, lævigatis; lunulâ ovatâ, albescente, striatâ; valvis intus purpurascente-roseo tinctis; sinu pallii lato, semicirculari.*

THE ORNATE MACTRA. Shell ovately transverse, rather compressed, rather thin, equilateral, smooth, finely striated, anteriorly obtuse, posteriorly slanting and obliquely truncated, purple-rose at the umboes, obscurely rayed with rose in the middle, and mottled with white spots; umboes small, smooth; lunule ovate, whitish, striated; valves stained within with purple-rose; sinus of the mantle broad, semicircular.

GRAY, Ann. and Mag. Nat. Hist. 1837, p. 371.

Hab. China Seas.

Richly stained and rayed with clear purple-rose, promiscuously mottled with white.

Species 59. (Mus. Cuming.)

MACTRA DISSIMILIS. *Mact. testâ transversâ, ovato-trigonâ, inæquilaterali, turgidulâ, nitidâ, albo-griseâ, transversim cinereo-zonatâ, intus purpureo-violaceâ, latere antico paulo breviore, obtuso, supernè recto, declivi, latere postico supernè convexiusculo, extremitate obtuso; umbonibus brevibus, acutis, posticè obtusè angulatis; lunulâ areâque distinctis, eleganter sulcatis; valvis regulariter transversim tenuè sulcatis, sulcis versus umbones evanescentibus.*

THE DISSIMILAR MACTRA. Shell transverse, ovately triangular, inequilateral, rather swollen, shining, whitish-grey, transversely ash-zoned, interior purple-violet; anterior side rather the shorter, obtuse, straight and slanting at the upper part, posterior side rather convex at the upper part, obtuse at the extremity; umboes short, sharp, posteriorly obtusely angled; lunule and area distinct, elegantly grooved; valves regularly transversely finely grooved, grooves fading away towards the umboes.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Australia; Jukes.

A rather solid transversely grooved shell, of a violet-ash hue, presenting somewhat of a *Donax*-like aspect.

Species 60. (Mus. Cuming.)

MACTRA PULCHRA. *Mact. testâ ovato-trigonâ, inæquilaterali, tumidiusculâ, solidâ, anticè breviore, rotundatâ, posticè attenuatâ, flavescente-cinereâ, obscurè fusco-radiatâ, anticè transversim regulariter sulcatâ; umbonibus tumidis, obliquis, lævigatis, violaceo-tinctis; areâ lunuláque ovatis, fusco-violascentibus, eleganter sulcatis, supernè albis; sinu pallii angusto, obtuso, profundo; valvis intus rufo-violaceis.*

THE BEAUTIFUL MACTRA. Shell ovately triangular, inequilateral, rather swollen, solid, anteriorly shorter, rounded, posteriorly attenuated, yellowish-ash, obscurely brown-rayed, transversely regularly grooved on the anterior side; umboes swollen, oblique, smooth, violet-tinged; area and lunule ovate, brown-violet, elegantly grooved, whitish at the upper part; sinus of the mantle narrow, obtuse, deep; valves reddish-violet within.

GRAY, Ann. and Mag. Nat. Hist. 1837, p. 372.

Hab. Red Sea.

A shining reddish-ash species, grooved on the anterior side only, not distinguished by any particular beauty.

Species 61. (Mus. Cuming.)

MACTRA INCARNATA. *Mact. testâ ovato-transversâ, subtrigonâ, tumidiusculâ, inæquilaterali, posticè paululum rostratâ, tenuistriatâ, nitidâ, albidâ, incarnato-roseo eleganter radiatâ; umbonibus parvis, approximatis; lunulâ areâque sublanceolatis, prominentè sulcatis.*

THE FLESH-TINTED MACTRA. Shell ovately transverse, subtriangular, rather swollen, inequilateral, posteriorly a little beaked, finely striated, shining, whitish, elegantly rayed with flesh-rose; umboes small, approximated; lunule and area sublanceolate, prominently grooved.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Swan River; Bacon.

A characteristic subrostrate transversely ovate shell, prettily rayed throughout with flesh-rose.

Species 62. (Mus. Cuming.)

MACTRA DONACIFORMIS. *Mact. testâ ovato-trigonâ, inæqualiterali, turgidâ, semicordatâ; umbonibus acutis, oppositis, distantibus, transversim tenuissimè striatâ, sub epidermide fulvâ albâ, anticè obtusâ, posticè latè planâ et angulatâ, extremitate acuminatâ.*

THE DONAX-SHAPED MACTRA. Shell ovately triangular, inequilateral, swollen, semicordate; umboes sharp, opposite, distant, transversely very finely striated, white, beneath a fulvous epidermis, anteriorly obtuse, posteriorly broadly flat and angled, acuminated at the extremity.

Mulinia Donaciformis, Gray, Ann. and Mag. Nat. Hist. 1837, p. 376. Beechey's Voyage, Moll. p. 154. pl. 44. f. 13.

Hab. New Zealand.

A very characteristic species, resembling particularly the form of the *Donax*-shaped species of *Arca*.

Species 63. (Mus. Cuming.)

MACTRA VIRGO. *Mact. testâ ovato-trigonâ, subæquilaterali, crassâ, solidâ, depressiusculâ, irregulariter transversim crebristriatâ, intus extusque candidissimâ, nitente, utroque latere æqualiter declivi, anticè obtusâ, posticè acuminatâ, subflexuosâ; umbonibus minimis, acutis, approximatis; lumulâ areâque lævigatis; sinu pallii brevi, lato, obtuso, obliquo.*

THE VIRGIN MACTRA. Shell ovately triangular, nearly equilateral, thick, solid, rather depressed, irregularly transversely closely striated, very white within and without, shining, both sides equally slanting, anteriorly obtuse, posteriorly acuminated, subflexuous; umboes very small, sharp, approximated; lunule and area smooth; sinus of the mantle short, broad, obtuse, oblique.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Swan River.

An ivory-white solid shell, of a depressly triangular form, rather flexuously acuminated on the posterior side.

Species 64. (Mus. Cuming.)

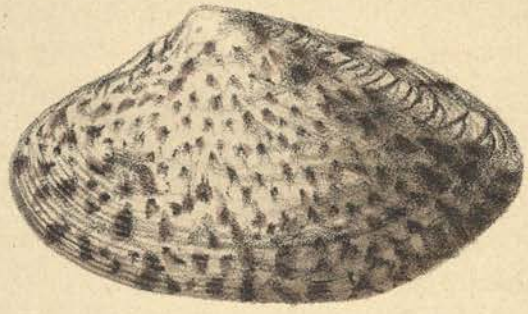
MACTRA DYSONI. *Mact. testâ transversim oblongâ, subtrigonâ, compressâ, subæquilaterali, posticè leviter acuminatâ, sub epidermide flavescente tenui calcareo-albâ, irregulariter transversim striatâ; umbonibus subacutè angulatis; lunulâ areâque subangulatis.*

DYSON'S MACTRA. Shell transversely oblong, subtriangular, compressed, nearly equilateral, posteriorly slightly acuminated, chalk-white, beneath a thin yellowish epidermis, irregularly transversely striated; umboes rather sharply angled; lunule and area slightly angled.

DESHAYES, Pro. Zool. Soc. 1854.

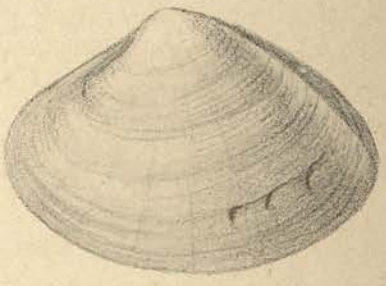
Hab. China.

Of a peculiarly delicate opake chalk-white, beneath a very slight yellowish epidermis, compressed and angled towards the umboes.

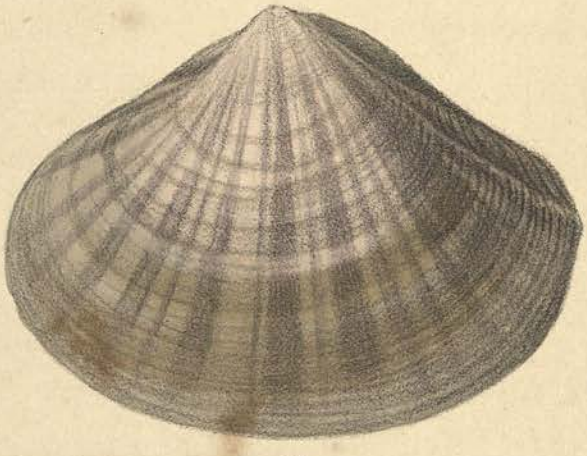


65

66



67



68

69

70

71

Sowerby del et lith.

Vincent Brooks Imp.

MACTRA.

PLATE XIV.

Species 65. (Mus. Cuming.)

MACTRA ASPERSA. *Mact. testâ elongato-transversâ, ellipticâ, compressâ, inæquilaterali, latere postico antico duplo longiore, transversim irregulariter tenuisulcatâ et striatâ, albâ, maculis epidermidis nigro-fuscæ peculiariter notatâ; umbonibus parvis, approximatis.*

THE SPRINKLED MACTRA. Shell elongately transverse, elliptic, compressed, inequilateral, posterior side twice as long as the anterior, transversely irregularly finely grooved and striated, white, peculiarly marked with spots of black-brown epidermis; umboes small, approximated.

SOWERBY, Tankerville Catalogue, Appendix, p. 2.
Spisula tenera, Gray.
Hab. Philippine Islands; Cuming.

The characteristic dark spots of this species reside only in the epidermis.

Species 66. (Mus. Cuming.)

MACTRA OVALINA. *Mact. testâ ovato-transversâ, subæquilaterali, compressâ, albâ, hyalinâ, tenuissimè transversim striatâ, utrinque obtusâ; umbonibus parvis, lævigatis, approximatis; areâ lanceolatâ, depressione bicarinatâ subflexuosâ utrinque notatâ, lunulâ angustâ, depressiusculâ; sinu pallii subelliptico, in medio latiore.*

THE OVALINE MACTRA. Shell ovately transverse, nearly equilateral, compressed, white, hyaline, very finely transversely striated, obtuse at both ends; umboes small, smooth, approximated; area lanceolate, with a bicarinate subflexuous depression on each side, lunule narrow, rather depressed; sinus of the mantle subelliptic, broader in the middle.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 104.
Hab. West Columbia; Cuming.

A compressed subtransparent white shell, with a characteristic two-keeled flexuous depression down each side of the area.

Species 67. (Mus. Cuming.)

MACTRA DEPRESSA. *Mact. testâ ovato-transversâ, subtrigonâ, inæquilaterali, depressâ, transversim irregulariter tenuistriatâ, albâ, sub epidermide tenui stramineâ, latere antico supernè concaviusculo, postico convexiusculo; lunulâ areâque sublanceolatis; cardine lato, solidiusculo, dentibus lateralibus brevibus; sinu pallii lato, obliquè arcuato.*

THE DEPRESSED MACTRA. Shell ovately transverse, subtriangular, inequilateral, depressed, transversely irregularly finely striated, white, beneath a light straw-coloured epidermis, anterior side rather concave at the upper part, posterior rather convex; lunule and area sublanceolate; hinge broad, rather solid; lateral teeth short; sinus of the mantle broad and obliquely arched.

SPENGLER, Skriv. Naturch. Selsk. vol. v. p. 118.
Hab. Australia.

Of very simple oval form, obtusely rounded at each end.

Species 68. (Mus. Cuming.)

MACTRA SAULIÆ. *Mact. testâ ovatâ, subtrigonâ, æquilaterali, depressâ, planâ, extremitatibus rotundatâ et hiante, sub epidermide sericeâ albâ fusco-violaceo-radiatâ; lunulâ areâque angustis, maculâ fusco-violaceâ notatis; valvis tenuibus, fragilibus, transversim tenuistriatis; sinu pallii lato.*

SAUL'S MACTRA. Shell ovate, subtriangular, equilateral, depressed, flat, rounded and gaping at the extremities, white, rayed with brown-violet, beneath a silky epidermis; lunule and area narrow, marked with fuscous-violet; valves thin and fragile, transversely finely striated; sinus of the mantle broad.

GRAY, Ann. and Mag. Nat. Hist. 1837.
Hab. Senegal.

A very distinct and well-marked species, remarkable for its fine transversely fibrous silky epidermis.

Species 69. (Mus. Cuming.)

MACTRA TRISTIS. *Mact. testâ suborbiculari, valdè compressâ, inæquilaterali, utrinque hiante, squalidè albâ, suberosâ, versus marginem epidermide fusco indutâ, transversim irregulariter densè striatâ, latere antico brevi, rotundato, postico duplo longiore, leviter flexuoso-angulato; umbonibus minimis, approximatis; lunulâ areâque indistinctis; sinu pallii magno, obtuso, basi dilatato.*

THE SAD MACTRA. Shell suborbicular, very compressed,

inequilateral, gaping at each end, dirty-white, suberoded, covered towards the margin with a brown epidermis, transversely irregularly closely striated, anterior side short and rounded, posterior twice as long, slightly flexuously angled; umboes very small, approximated; lunule and area indistinct; sinus of the mantle large, obtuse, dilated at the base.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Moreton Bay, Australia.

A very compressed suborbicular shell, rough and eroded, except where covered with a dark olive-brown fibrous epidermis.

Species 70. (Mus. Cuming.)

MACTRA EXPLANATA. *Mact. testâ ovato-subtrigonâ, compressâ, eburneâ, lævigatâ, nitente, latere antico lato, obtuso, paulo breviore, postico declivi, attenuato, hiante; umbonibus parvis, approximatis; lunulâ lanceolatâ, medio elevatâ, areâ angustâ, concavâ, angulâ bicarinatâ utrinque notatâ; cardine peculiariter lato et excavato; sinu pallii lato, profundiusculo, obtusissimo.*

THE SMOOTH MACTRA. Shell ovately subtriangular, compressed, ivory-white, smooth, shining, anterior side broad, obtuse, rather the shorter, posterior slanting and attenuated, gaping; umboes small, approximated; lunule lanceolate, raised in the middle, area narrow, concave, with a two-keeled angle on each side; hinge peculiarly broad and excavated; sinus of the mantle broad, rather deep, very obtuse.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Swan River, Australia.

A subpellucid shining ivory-white compressed shell, with a very peculiar hinge, the lateral teeth in each valve forming an unusually broad lamellar trench.

Species 71. (Mus. Cuming.)

MACTRA EGENA. *Mact. testâ ovato-transversâ, compressâ, inæquilaterali, candidissimâ, transversim irregulariter striatâ, latere antico brevi, angustato, supernè declivi, latere postico latiore; areâ angustissimâ, profundâ, utrinque angulum irregulariter plicato-notatâ, lunulâ lanceolatâ; umbonibus parvis, approximatis; sinu pallii profundo, lato, digitiformi, dimidiam partem valvarum attingente.*

THE DISTRESSED MACTRA. Shell ovately transverse, compressed, inequilateral, very white, transversely irregularly striated, anterior side short, narrowed, slanting at the upper part, posterior side broader; area very narrow, deep, with an irregularly plaited obtuse angle on each side, lunule lanceolate; umboes small, approximated; sinus of the mantle deep, broad, finger-shaped, reaching to the half of the valve.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Somewhat resembling *M. Dysoni*, but more inequilateral, and roughly plicated on each side the cardinal area, which is pressed inwards.

72

73

74

75

76.

77

78

Sowerby del. et lith.

Vincent Brooks Imp

MACTRA.

PLATE XV.

Species 72. (Mus. Brit.)

MACTRA BILINEATA. *Mact. testâ oblongo-ovatâ, subcompressâ, pellucido-albâ, epidermide sericeâ sparsim indutâ, inæquilaterali, latere antico rotundato, postico longiore, subobsoletè concavo-angulato, angulo utrinque lineari-carinato; lunulâ vix nullâ.*

THE BILINEATED MACTRA. Shell oblong-ovate, rather compressed, transparent white, covered here and there with a silky epidermis, inequilateral, anterior side rounded, posterior longer, somewhat obsoletely concavely angled, angle linearly keeled down each side; scarcely any lunule.

C. B. ADAMS (Mus. Cuming).

Hab. Jamaica.

A clear subtransparent shell, partially covered with a slight silky epidermis, characterized on the posterior side by a bi-linearly keeled angle.

Species 73. (Mus. Brit.)

MACTRA TELLINOIDES. *Mact. testâ subtrigono-ovatâ, opaco-albâ, lævigatâ, epidermide fuscescente sparsim indutâ, inæquilaterali, latere antico brevi, rotundato, postico latè angulato et producto; umbonibus acutis; lunulâ vix nullâ.*

THE TELLEN-LIKE MACTRA. Shell somewhat triangularly ovate, opake-white, smooth, sparingly covered with a light brown epidermis, inequilateral, anterior side short, rounded, posterior broadly angled and produced; umboes sharp, scarcely any lunule.

CONRAD, Journ. Acad. Nat. Sci. Philadelphia.

Hab. ——?

This species differs from the following in being of an opake chalk-white and smooth, whilst that is shining white and strongly striated.

Species 74. (Mus. Brit.)

MACTRA SUBLANCEOLATA. *Mact. testâ subtrigono-ovatâ, albâ, inæquilaterali, lateribus ambobus subangulatis, latere antico transversim striato, postico longiore, sublanceolato, minus striato; lunulâ indistinctâ, areâ posticali latâ, subconcava.*

THE SUBLANCEOLATE MACTRA. Shell somewhat triangularly ovate, white, inæquilateral, both sides rather angular, anterior side transversely striated, posterior longer, sublanceolate, less striated; lunule indistinct, posterior area broad, rather concave.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

A shining white species, sharply transversely striated, chiefly on the posterior side, with a rather broad wedge-like area on the posterior side.

Species 75. (Mus. Cuming.)

MACTRA CORNEA. *Mact. testâ subtrigonâ, tenui, ventricosâ, transversim tenuistriatâ, striis irregularibus, ad latera rugosis; incarnato-albâ, obscurè concentricè fasciatâ; subæquilaterali, latere antico rotundato, postico longiore, subproducto; lunulâ amplâ, subindistinctâ; umbonibus conspicuis, confertis.*

THE HORNY MACTRA. Shell somewhat triangular, ventricose, transversely finely striated, striæ irregular, rugose at the sides; flesh-white, obscurely concentrically banded; nearly equilateral, anterior side rounded, posterior longer, somewhat produced; lunule large, rather indistinct; umboes conspicuous, close-set.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

A light flesh-tinged shell, quite distinct in its characters from any other species.

Species 76. (Mus. Brit.)

MACTRA MURCHISONI. *Mact. testâ ovatâ, subventricosâ, solidiusculâ, albâ, lævigatâ, epidermide stramineâ versus marginem indutâ, subæquilaterali, latere antico rotundato, postico sublongiore, leviter angulato-producto, angulo lineari-carinato; lunulâ perampla, corrugato-liratâ; umbonibus confertis.*

MURCHISON'S MACTRA. Shell ovate, subventricose, rather solid, white, smooth, covered towards the margin with a straw-coloured epidermis, nearly equilateral, anterior side rounded, posterior rather the longer, slightly angularly produced, angle linearly keeled; lunule very large, wrinkle-ridged; umboes close-set.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. New Zealand; Major Greenwood.

A solid opake-white shell, covered towards the margin with a clear thin straw-coloured epidermis, having the anterior lunule very large and peculiarly wrinkle-edged.

Species 77. (Mus. Brit.)

MACTRA BYRONENSIS. *Mact. testâ ovatâ, solidiusculâ, gibbosâ, opaco-albâ, æquilaterali, anticè rotundatâ, posticè obtusè subangulatâ; lunulâ indistinctâ; umbonibus parvis, subremotis.*

THE BYRON MACTRA. Shell ovate, rather solid, gibbous, opake-white, equilateral, anteriorly rounded, posteriorly obtusely slightly angled; lunule indistinct; umboes small, rather distant.

Mulinia Byronensis, Gray in Brit. Mus.

Hab. South America; Capt. Lord Byron.

An opake-white solid shell, of somewhat gibbous oval form, with little or no sculpture or inequality of growth.

Species 78. (Mus. Brit.)

MACTRA EXALBIDA. *Mact. testâ subquadrato-ovatâ, versus marginem compressâ, calcareo-albâ, irregulariter rugoso-striatâ, epidermide tenui stramineâ sparsim indutâ, inæquilaterali, latere antico brevi, rotundato, postico obliquè rotundato, multo longiore; lunulâ vix nullâ; umbonibus subremotis.*

THE VERY WHITE MACTRA. Shell somewhat squarely ovate, compressed towards the margin, chalk-white, irregularly roughly striated, sparingly covered with a thin straw-coloured epidermis, inequilateral, anterior side short, rounded, posterior obliquely rounded, much longer; scarcely any lunule; umboes rather distinct.

Mulinia exalbida, Gray in Brit. Mus.

Hab. South America; Capt. P. P. King.

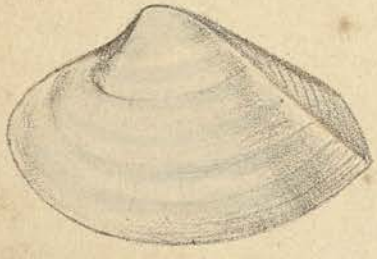
Of an eroded chalk-white character, roundly oblong-produced on the posterior side.

79

80

81

82



83

84

85

Sowerby del et lith.

Vincent Brooks Imp.

MACTRA.

PLATE XVI.

Species 79. (Mus. Cuming.)

MACTRA GIBBOSULA. *Mact. testâ subtrigono-cordatâ, tenuiculâ, gibbosâ, inæquilaterali, transversim filiformi-striatâ, versus umbones lævigatâ, albâ, ferrugineo-fuscescente pallidissimè tinctâ, latere antico brevi, postico declivi, obtusè angulatâ; umbonibus tumidis, utrinque angulatis, approximatis; lunulâ areâque latiusculis, eleganter plicatis, medio elevatis.*

THE GIBBOUS MACTRA. Shell somewhat triangularly cordate, rather thin, gibbous, inequilateral, transversely thread-like striated, smooth towards the umboes, white, faintly tinged with rust-brown, anterior side short, posterior slanting, obtusely angled; umboes swollen, angled on each side, close; lunule and area rather broad, elegantly plicated, raised in the middle.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Indian Seas.

A thin swollen species, having somewhat the general aspect of a *Cardium*.

Species 80. (Mus. Cuming.)

MACTRA DECORA. *Mact. testâ ovato-transversâ, turgidâ, inæquilaterali, nitidâ, albo et violaceo eleganter radiatâ et transversim zonatâ, latere antico breviore, obtuso, transversim tenuè regulariter sulcato, sulcis in medio evanescentibus; umbonibus tumidiusculis, atro-violaceis, parum distantibus; lunulâ albo et violaceo bicoloratâ, regulariter plicatâ, areâ concaviusculâ, tenuiplicatâ.*

THE HANDSOME MACTRA. Shell ovately transverse, swollen, inequilateral, shining, elegantly rayed and transversely zoned with white and violet, anterior side the shorter, obtuse, transversely finely irregularly grooved, grooves disappearing towards the middle; umboes rather swollen, dark violet, but little distant; lunule two-coloured with white and violet, regularly plicated, area rather concave, thinly plicated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Of a *Cytherea* aspect, grooved on the anterior half, elegantly banded and faintly rayed with cinereous violet.

Species 81. (Mus. Cuming.)

MACTRA LUZONICA. *Mact. testâ transversim trigonâ, æquilaterali, subsymmetricè turgidulâ, æqualiter utroque latere declivi, latere antico subobsoletè sulcato, sulcis in medio plus minus evanescentibus, nitidâ, pallidè fuscâ vel albo-rufescente, in latere postico castaneâ, extremitatibus æqualiter obtusis; umbonibus minimis, acutis, apice violaceis; lunulâ areâque subæqualibus, regulariter plicatis, violaceo maculatis.*

THE LUZON MACTRA. Shell transversely triangular, equilateral, rather symmetrically swollen, slanting equally on each side, anterior side faintly grooved, the grooves more or less fading in the middle, shining, pale brown or whitish-red, chestnut on the posterior side, extremities equally obtuse; umboes very small, sharp, violet at the apex; lunule and area nearly equal, regularly plicated, spotted with violet.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Island of Luzon, Philippines.

A smooth reddish-ash fawn shell, violet-tipped at the umboes, chiefly remarkable for its equilateral oblong triangular form.

Species 82. (Mus. Cuming.)

MACTRA MERA. *Mact. testâ ovato-trigonâ, turgidulâ, lævigatâ, nitidâ, inæquilaterali, corneo-flavescente, ad umbones rufescente, zonulis transversalibus saturatioribus distanter interruptâ, intus corneo-rufescente, latere antico paulo breviore, obtuso, supernè declivi et convexiusculo, postico attenuato, valdè declivi, umbones versus convexiusculo; umbonibus depressis, parum obliquis, approximatis, acutis; lunulâ areâque ovatis, tumidiusculis, regulariter plicatis.*

THE PLAIN MACTRA. Shell ovately triangular, rather swollen, smooth, shining, inequilateral, horny-yellowish, reddish at the umboes, distantly interrupted with darker transverse zones, interior horny-red, anterior side a little the shorter, obtuse, slanting and rather convex at the upper part, posterior side attenuated, very slanting, rather convex towards the umboes, umboes depressed, a little oblique, approximated, sharp; lunule and area ovate, rather swollen, regularly plicated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. China Sea.

A subtriangular rather swollen shell, of a peculiar livid rose hue, irregularly obscurely banded across.

Species 83. (Mus. Cuming.)

MACTRA ANGULIFERA. *Mact. testâ ovato-trigonâ, transversâ, compressâ, utroquè latere hiante, subæquilaterali, candidâ, nitidâ, transversim obsoletè irregulariter striatâ, latere antico breviore, obtuso, supernè concaviusculo, postico declivi, brevi, truncato, angulo acuto angusto obliquè decurrente; umbonibus brevibus, depressis, obliquis, tenuè regulariter plicatis; lunulâ ovatâ, lævigatâ, concaviusculâ, areâ angustâ, concavâ.*

THE ANGLED MACTRA. Shell ovately triangular, transverse, compressed, gaping on both sides, nearly equilateral, white, shining, transversely obsoletely irregularly striated, the anterior side the shorter, obtuse, rather concave at the upper part; posterior slanting, short, truncated, with a sharp narrow angle running down obliquely; umboes short, depressed, oblique, thinly regularly plicated; lunule ovate, smooth, rather concave, area narrow, concave.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Island of Ticao, Philippines; Cuming.

A very compressed shining white species, with a singularly oblique keel-edged area.

Species 84. (Mus. Cuming.)

MACTRA SYMMETRICA. *Mact. testâ trigonâ, æquilaterali, turgidulâ, lævigatâ, nitidâ, ad marginem inferiorem transversim sulcatâ, pallidè flavicante, lateribus æqualiter declivibus et attenuatis, supernè convexiusculis, margine inferiore regulariter arcuato; lunulâ areâque æqualibus, eleganter plicatis; umbonibus minimis, acutis, oppositis, anticè maculâ violaceâ notatis.*

THE SYMMETRICAL MACTRA. Shell triangular, equilateral, rather swollen, smooth, shining, transversely grooved at the lower margin, pale yellowish, sides equally slanting and attenuated, rather convex at the upper part, lower margin regularly arched; lunule and area equal, elegantly plicated; umboes very small, sharp, opposite, marked in front with a violet spot.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

A plain *Donax*-like species, of a uniform yellowish stone-colour, particularly neatly plaited on the lunule and area.

Species 85. (Mus. Cuming.)

MACTRA REEVEI. *Mact. testâ rotundato-trigonâ, inflatâ, solidâ, subæquilaterali, transversim obsoletè striatâ, epidermide tenui stramineâ tenuè striatâ lamellosâ indutâ, albo-rufescente, maculis sparsis inæqualibus fuscis ornatâ, posticè castaneo-tinctâ, latere antico paulo breviore, latè rotundato, postico attenuato, declivi, brevi-truncato; umbonibus prominulis, approximatis; lunulâ areâque subindistinctis, simplicibus.*

REEVE'S MACTRA. Shell rotundately triangular, inflated, solid, nearly equilateral, transversely obsoletely striated, covered with a thin finely striated lamellous straw-coloured epidermis, whitish-red, ornamented with a few unequal brown spots, posteriorly chestnut-stained, anterior side a little the shorter, broadly rounded, posterior attenuated, slanting, shortly truncated; umboes rather prominent, approximated; lunule and area rather indistinct, simple.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. New Caledonia.

Allied to *M. maculata*, but more solid and *Cytherea*-like, less attenuated posteriorly.

86

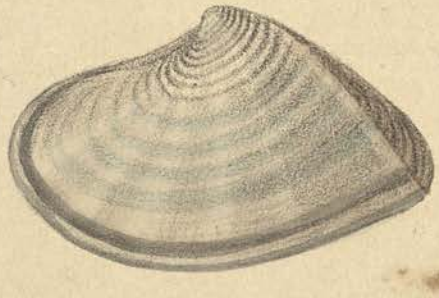
87

88

89

90

91



92

Sowerby del et lith

Vincent Brooks Imp

MACTRA.

PLATE XVII.

Species 86. (Mus. Cuming.)

MACTRA CONTRARIA. *Mact. testâ ovato-trigonâ, æquilaterali, compressiusculâ, nitidâ, transversim obsoletè tenuissimè striatâ, utroque latere convexo, declivi, subangulatis, margine inferiore valdè arcuato; lunulâ areâque sulcatis, sulcis lunulæ profundis, infernè convergentibus, rugis brevibus ad extremitate anticâ, albidâ; umbonibus minimis, violaceo-tinctis.*

THE CONTRARY MACTRA. Shell ovately triangular, equilateral, rather compressed, shining, transversely obsoletely very finely striated, rather convex, slanting and slightly angled on both sides, lower margin very much arched; lunule and area grooved, grooves of the lunule deep, converging at the lower part, with short wrinkles at the anterior extremity, whitish; umboes very small, tipped with violet.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. —— ?

A rather thin triangularly compressed shell, peculiarly plait-wrinkled at the anterior extremity, with the umboes tipped in a characteristic manner with violet.

Species 87. (Mus. Cuming.)

MACTRA INÆQUALIS. *Mact. testâ ovato-transversâ, subtrigonâ, inæquilaterali, compressiusculâ, ad marginem inferiorem acutiusculâ, politâ, nitente, epidermide flavescente corneâ indutâ, latere antico longiore, subattenuato, obtuso, postico angulato; lunulâ areâque tenuiplicatis; umbonibus brevibus, acutis, oppositis.*

THE UNEQUAL MACTRA. Shell ovately transverse, subtriangular, inequilateral, rather compressed, rather sharp at the lower margin, polished, shining, covered with a yellowish-horny epidermis, anterior side the longer, rather attenuated, and obtuse, posterior angled; lunule and area thinly plicated; umboes short, sharp, opposite.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. China Sea.

A smooth pallid shell, covered towards the margin with a warm yellowish-horny epidermis, peculiar in having the anterior side longer than the posterior.

Species 88. (Mus. Cuming.)

MACTRA TRANSVERSA. *Mact. testâ ovato-oblongâ, transversâ, subæquilaterali, solidiusculâ, compressâ, albidâ, epidermide squalidè flavicante, transversim regulariter sulcatâ, latere antico declivi, subacuminato, postica angulo acuto infernè terminato, obliquè truncato, angulo decurrente; umbonibus parvis, acutis, oppositis.*

THE TRANSVERSE MACTRA. Shell ovately oblong, transverse, nearly equilateral, rather solid, compressed, whitish, covered with a dull yellowish epidermis, regularly transversely grooved, anterior side slanting, rather acuminated, posterior terminating at the lower part with a sharp angle, obliquely truncated, with an angle running down; umboes small, sharp, opposite.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. —— ?

A triangularly compressed shell, of rather solid growth, transversely grooved, covered with a dull ochraceous epidermis.

Species 89. (Mus. Cuming.)

MACTRA ELEGANS. *Mact. testâ rotundato-trigonâ, tumidâ, tenui, diaphano-albâ, epidermide fibrosâ ad marginem indutâ, æquilaterali, anticè rotundatâ, posticè subrostratâ et lamellato-carinatâ, transversim concentricè undique costatâ; lunulâ cordatâ, concavâ, lævigatâ, areâ angustâ, concavâ, utrinque carinatâ; umbonibus approximatis.*

THE ELEGANT MACTRA. Shell rotundately triangular, swollen, thin, diaphanous-white, covered at the margin with a fibrous epidermis, equilateral, anteriorly rounded, posteriorly slightly beaked and lamellately keeled, transversely concentrically ribbed throughout; lunule heart-shaped, concave, smooth, area narrow, concave, keeled on each side; umboes close.

SOWERBY, Tankerville Catalogue, Appendix, p. 2. pl. 1. f. 3.

Hab. Florida.

This truly elegant species, first described and figured by Mr. Sowerby in the Tankerville Catalogue, is of a triangularly globose form, and of thin diaphanous-white substance, prominently concentrically ribbed throughout.

Species 90. (Mus. Cuming.)

MACTRA SUBTRUNCATA. *Mact. testâ ovato-subtrigonâ, inæquilaterali, transversim striato-sulcatâ, sub epidermide sordidè flavescente cretaceo-albâ, latere antico ro-*

tundato, postico subrostrato, longiore; areâ lunulâque subamplis, striatis; ligamento extus conspicuo; umbonibus approximatis.

THE SUBTRUNCATE MACTRA. Shell ovately subtriangular, inequilateral, transversely striately grooved, chalk-white beneath a dirty-yellowish epidermis, anterior side rounded, posterior slightly beaked, longer; area and lunule rather large, striated; ligament conspicuous without; umboes approximated.

MONTAGU, Testacea Britannica, p. 93, and Sup. p. 37. pl. 27. f. 1.

Trigonella subtruncata, Da Costa.

Mactra lactea, Poli.

Mactra truncata, Brown.

Mactra deltoides, Collard.

Spisula subtruncata, Gray.

Hab. European Seas.

A rather solid epidermis-covered shell, somewhat resembling *Gnathodon* in general aspect.

Species 91. (Mus. Cuming.)

MACTRA RADIOLATA. *Mact. testâ trigonâ, obliquâ, inæquilaterali, turgidâ, cordiformi, sub epidermide flavescente tenuissimâ albâ, roseo radiolatâ, latere antico paulo breviore, latè rotundato, postico rapidè declivi, attenuato; lunulâ areâque convexiusculis, regulariter plicato-striatis; umbonibus tumidis, prominentibus, parum obliquis.*

THE FINELY-RAYED MACTRA. Shell triangular, oblique, inequilateral, swollen, heart-shaped, white, finely rayed with rose beneath a very thin yellowish epidermis, anterior side a little the shorter, broadly rounded, posterior rapidly slanting, attenuated; lunule and area rather convex, regularly plicately striated; umboes swollen, prominent, a little oblique.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Island of Zebu, Philippines; Cuming.

Distinguished by its shortly triangular form, and delicately red-rayed painting.

Species 92. (Mus. Cuming.)

MACTRA REEVESII. *Mact. testâ elongato-transversâ, donaciformi, inæquilaterali, compressâ, albâ, ad umbones eleganter concentricè plicatâ, deinde lævigatâ, nitidâ, latere antico longiore subarcuato et rostrato, postico obliquè truncato, angulatis, lateribus ambobus hiantibus; lunulâ impressâ, lanceolato-ovatâ, areâ magnâ, concavâ, utrinque carinatâ.*

REEVES'S MACTRA. Shell elongately transverse, donax-shaped, inequilateral, compressed, white, concentrically elegantly plaited about the umboes, then smooth, shining, anterior side rather arched and beaked, posterior obliquely truncated, angled, both sides gaping; lunule impressed, lanceolately ovate, area rather large, concave, keeled on each side.

GRAY, Ann. and Mag. Nat. Hist. 1837, p. 372.

Hab. Malacca.

A very characteristic peculiarly oblong arched transverse shell, of subtransparent substance, gaping at both ends.

93

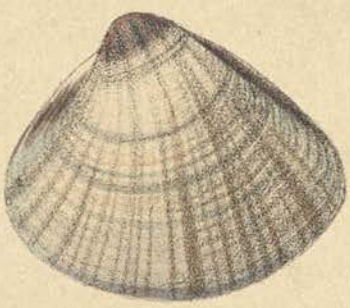
94

95

96a

97

98



96b

99

100

101

Sowerby del et lith.

Vincent Brooks Imp.

MACTRA.

PLATE XVIII.

Species 93. (Mus. Cuming.)

MACTRA ANGUSTA. *Mact. testâ ovato-transversâ, angustâ, subtrigonâ, subæquilaterali, compressâ, albâ, tenui, fragili, transversim regulariter striatâ, latere antico paulo breviore, obtuso, supernè concaviusculo, postico supernè declivi, attenuato; areâ angustâ, elongatâ, planulatâ, utrinque liratâ; umbonibus minimis, parum obliquis, regulariter undato-plicatis; lunulâ minimâ, lanceolatâ.*

THE NARROW MACTRA. Shell ovately transverse, narrow, rather triangular, nearly equilateral, compressed, white, thin, fragile, transversely regularly striated, anterior side a little the shorter, obtuse, rather concave at the upper part, posterior side slanting at the upper part, attenuated; area narrow, elongated, flat, with a ridge on each side; umboes very small, a little oblique, regularly wave-plaited; lunule very small, lanceolate.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Panama; Cuming.

A slender subtransparent *Tellen*-like shell, delicately wave-plaited around the umboes.

Species 94. (Mus. Cuming.)

MACTRA TRIANGULA. *Mact. testâ gibboso-trigonâ, Corbulæformi, crassiusculâ, inæquilaterali, utrinque obtusè carinatâ, transversim sulcato-striatâ, sordidè albâ, latere antico rotundato, postico concavo-attenuato, subrostrato; umbonibus tumidis, approximatis; lunulâ areâque amplis, latis.*

THE TRIANGULAR MACTRA. Shell gibbously triangular, Corbula-shaped, rather thick, inequilateral, obtusely keeled on each side, transversely groove-striated, dull white, anterior side rounded, posterior concavely attenuated, somewhat beaked; umboes swollen, close; lunule and area large and broad.

RENIERI, Philippi, Enum. Moll. Sicil. p. 11.
Mactra Euxinica, Krynicki.

Hab. Mediterranean.

A rather solid Corbula-shaped species, strongly striated across, of a dull stone-colour.

Species 95. (Mus. Cuming.)

MACTRA OPPOSITA. *Mact. testâ trigonâ, cuneiformi, æquilaterali, transversim striatâ, ad umbones lævigatâ, nitente, violaceo-albâ, obscurè fasciatâ, pallidè roseo radiatâ; lunulâ areâque subamplis, æqualibus, eleganter striatis, violaceo-fusco tinctis; umbonibus approximatis, intensè violaceis.*

THE OPPOSITE MACTRA. Shell triangular, wedge-shaped, equilateral, transversely striated, smooth and shining at the umboes, violet-white, obscurely banded, rayed with pale rose; lunule and area rather large, equal, elegantly striated, stained with violet-brown; umboes close, deep violet.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Island of Luzon, Philippines; Cuming.

A triangular subequilateral species, faintly rose-rayed, peculiarly stained with violaceous-brown on the area and lunule, with the umboes tipped with very dark violet.

Species 96. (Mus. Cuming.)

MACTRA LURIDA. *Mact. testâ subglobosâ, tumidâ, inæquilaterali, pallidè cinereâ, roseo obscurè tenuiradiatâ, versus umbones incarnato-tinctâ, latere antico rotundato, postico arcuato-producto; lunulâ areâque eleganter striatis, violaceo-fuscescente tinctis; umbonibus subobliquis, approximatis, intus intensè violaceo-radiatâ.*

THE LURID MACTRA. Shell subglobose, swollen, inequilateral, pale ash, obscurely finely rayed with rose, flesh-tinged towards the umboes, anterior side rounded, posterior arcuately produced; lunule and area elegantly striated, stained with light violet-brown; umboes rather oblique, opposite, interior deep violet-rayed.

PHILIPPI, Abbild. und Besch. Conch. Mactra, p. 136. pl. 3. f. 3.

Hab. Island of Liewkiew, China Sea; Philippi. Island of Negros, Philippines; Cuming.

A swollen gibbous species, flesh-tinged about the umboes, and richly stained in the interior with broad violet rays.

Species 97. (Mus. Cuming.)

MACTRA ATTENUATA. *Mact. testâ ovato-trigonâ, transversâ, tenui, turgidâ, inæquilaterali, transversim irregulariter densè striatâ, lividè violaceâ, ad umbones atro-violaceâ, intus pallidè violaceâ, latere antico breviore, obtuso, supernè declivi, latere postico declivi, truncato; umbonibus brevibus, parum obliquis, approx-*

matis; areâ elongato-ovatâ, lunulâque tenuistriatis; cardine angusto, fossulâ profundâ; dentibus lateralibus lamellosis, prominentibus, antico multo breviore; sinu pallii lato, vix excavato.

THE ATTENUATED MACTRA. Shell ovately triangular, transverse, thin, swollen, inequilateral, transversely irregularly thickly striated, livid-violet, blackish-violet at the umboes, paler violet within, anterior side the shorter, obtuse, slanting at the upper part, posterior side slanting, truncated; umboes short, a little oblique, approximated; area elongately ovate, and with the lunule finely striated; hinge narrow, pit deep; lateral teeth lamellous, prominent, the anterior much the shorter; sinus of the mantle broad, scarcely excavated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Of a peculiar dark livid ash-violet colour within and without, somewhat unusually attenuated towards the posterior extremity.

Species 98. (Mus. Cuming.)

MACTRA CORBICULOIDES. *Mact. testâ trigono-subquadratâ, crassiusculâ, turgidâ, subæquilaterali, lividoalbidâ, ad umbones intensè cæruleâ, latere antico rotundato, postico concavo-rostrato; lunulâ areâque magnis, latis, subconcâvis; umbonibus tumidis, approximatis, intus intensè cæruleo-violaceâ.*

THE LITTLE BASKET MACTRA. Shell triangularly subquadrate, rather thick, swollen, nearly equilateral, livid white, deep blue at the umboes, anterior side rounded, posterior concavely beaked; lunule and area large, broad, subconcave; umboes swollen, close, interior deep blue-violet.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Ceylon; E. L. Layard.

A short triangularly gibbous species, rather thick, deep blue-violet at the umboes, and especially deep-dyed with the same colour in the interior.

Species 99. (Mus. Cuming.)

MACTRA LATERALIS. *Mact. testâ trigono-ovatâ, inæquilaterali, transversim subirregulariter sulcato-striatâ, squalidè albâ, epidermide fuscescente partim indutâ, latere antico brevi, obtusè angulato; postico attenuato, subrostratò; lunulâ areâque subamplis, densè striatis; umbonibus angulatis, approximatis.*

THE LATERAL MACTRA. Shell triangularly ovate, inequilateral, transversely rather irregularly groove-striated, dirty-white, partially covered with a brownish epidermis, anterior side short, obtusely angled, posterior attenuated, somewhat beaked; lunule and area rather large, closely striated; umboes angular, approximated.

SAY, Journ. Acad. Nat. Sci. Philadelphia, vol. ii. p. 309.

Hab. Massachusetts, United States; Gould.

A simple triangularly ovate species, of a stone-white hue, attenuately produced at the posterior end.

Species 100. (Mus. Cuming.)

MACTRA INCONGRUA. *Mact. testâ trigonâ, gibbosâ, subæquilaterali, tenuiculâ, lævigatâ, calcareo-albâ, lateribus obtusè angulatis, postico subproducto; lunulâ areâque ovatis, latiusculis, eleganter plicato-striatis; umbonibus approximatis.*

THE INCONGRUOUS MACTRA. Shell triangular, gibbous, nearly equilateral, rather thin, smooth, chalk-white, sides obtusely angled, the posterior rather produced; lunule and area ovate, rather broad, elegantly plicately striated; umboes close.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Island of Luzon, Philippines; Cuming.

The chief peculiarity of this species, consists in the lunule and area being elegantly plicately striated, while the rest of the shell is smooth.

Species 101. (Mus. Cuming.)

MACTRA ELLIPTICA. *Mact. testâ trigono-ellipticâ, compressâ, crassiusculâ, subæquilaterali, transversim rudè plicatâ et striatâ, lateribus rotundatis, antico sublongiore; lunulâ areâque angustis, indistinctis; umbonibus minimis, approximatis.*

THE ELLIPTIC MACTRA. Shell triangularly elliptic, compressed, rather thin, nearly equilateral, transversely rudely plicated and striated, sides rounded, anterior rather the longer; lunule and area narrow, indistinct; umboes very small, close.

BROWN, Illus. Conch. Brit. p. 109. pl. 41. f. 6.

Hab. British and French Seas.

A rather solid rudely plicated compressed shell, with the anterior side rather the longer, the umboes being very small and the lunule and area not very distinct.

102

103

104

105

106

107

108

109

110

111

Sowerby del. et lith.

Vincent Brooks Imp.

MACTRA.

PLATE XIX.

Species 102. (Mus. Cuming.)

MACTRA NUCLEUS. *Mact. testâ trigono-quadratâ, compressâ, æquilaterali, squalidè albâ; umbonibus submucronatis; lunulâ areâque angustis, declivis, indistinctis.*

THE KERNEL MACTRA. Shell triangularly square, compressed, equilateral, dirty white; umboes rather pointed; lunule and area slanting, narrow, indistinct.

CONRAD, Journ. Acad. Nat. Sci. Philadelphia, vol. 6. pl. 11. f. 4.

Hab. Bay of Manilla; Cuming. North America; Conrad.

A minute triangularly square compressed species, the smallest of the genus.

Species 103. (Mus. Cuming.)

MACTRA CORBULOIDES. *Mact. testâ trigono-ovatâ, gibbosiusculâ, inæquilaterali, lævigatâ, albâ, nitente, latere antico rotundato, postico latè trigono, arcuato-rostrato; lunulâ minimâ, areâ maximâ.*

THE CORBULA-LIKE MACTRA. Shell triangularly ovate, rather gibbous, inequilateral, smooth, white, shining, anterior side rounded, posterior broadly angled, arcuately beaked; lunule very small, area very large.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Distinguished by a broad concavely beaked area, while the lunule is almost obsolete.

Species 104. (Mus. Cuming).

MACTRA ROSTRATA. *Mact. testâ trigonâ, gibbosiusculâ, inæquilaterali, sordidè albâ, lævigatâ, latere antico rotundato, posteriore angulato-rostrato; lunulâ vix nullâ, areâ magnâ, latâ.*

THE BEAKED MACTRA. Shell triangular, rather gibbous, inequilateral, dull white, smooth, anterior side rounded, posterior angularly beaked; lunule scarcely any, area large and broad.

SPENGLER, Skrift. Naturch. Selsk. vol. 5. p. 115.

Hab. Moreton Bay, Australia; Strange.

Very similar to the preceding species, but shorter and more gibbous in form.

Species 105. (Mus. Cuming.)

MACTRA APHRODINA. *Mact. testâ transversâ, ovato-trigonâ, tenui, depressiusculâ, inæquilaterali, pallidè violaceâ, zonulis transversis saturatioribus irregulariter interruptâ, transversim regulariter eleganter striatâ, latere antico paululum attenuato, supernè recto, declivi, postico æqualiter obtuso; umbonibus minimis, acutis, albidis; cardine angusto, violaceo, utroque latere maculato; fossulâ minimâ, angustâ, obliquâ; dentibus lateralibus lamellosis; valvis intus vividè violaceis, in medio pallidioribus; impressione pallii margine inferiore remoto, sinu angusto, brevi, horizontali.*

THE APHRODINE MACTRA. Shell transverse, ovately triangular, thin, rather depressed, inequilateral, pale violet, irregularly interrupted with darker transverse zones, transversely regularly elegantly striated, anterior side a little attenuated, straight at the upper part, slanting, equally obtuse with the posterior; umboes very small, sharp, whitish; hinge narrow, violet, spotted on both sides; pit very small, narrow, oblique; lateral teeth lamellous; valves deep violet within, paler in the middle; impression of the mantle with the lower edge remote, sinus narrow, short, horizontal.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. China Seas; Belcher.

A peculiarly polished *Cytherea*-like species, of a livid grey colour, obscurely banded.

Species 106. (Mus. Cuming.)

MACTRA SCALPELLUM. *Mact. testâ trigono-oblongâ, tenui, valdè compressâ, æquilaterali, lævigatâ, nitente-albâ, extremitatibus subattenuato-rotundatis; umbonibus minimis, approximatis; lunulâ areâque angustissimis, indistinctis, plicato-striatis.*

THE LANCET MACTRA. Shell triangularly oblong, thin, very compressed, equilateral, smooth, shining white, extremities rather attenuately rounded; umboes very small, close; lunule and area very narrow, indistinct, plicately striated.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. New Zealand; Strange.

A thin compressed species with a white polished surface, having very much the appearance of a *Tellina*.

Species 107. (Mus. Cuming.)

MACTRA DOLABRATA. *Mact. testâ oblongâ, trigono-subquadratâ, posticè paululum hiante, æquilaterali, sub lente tenuissimè transversim striatâ, nitente-albâ, latere antico rotundato-producto, postico abruptè declivi, obtusè angulato; umbonibus peculiariter compressis, approximatis; lunulâ areâque subangustis, excavatis, lævibus.*

THE AXE-SHAPED MACTRA. Shell oblong, triangular, subquadrate, posteriorly a little gaping, equilateral, beneath the lens very finely transversely striated, shining white, interior side rotundately produced, posterior abruptly slanting, obtusely angled; umboes peculiarly compressed, close; lunule and area rather narrow, excavated, smooth.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

Peculiar in form, the anterior side being produced and rounded, while the posterior is abruptly slanting and angled.

Species 108. (Mus. Cuming.)

MACTRA SILICULA. *Mact. testâ transversim ovatâ, utrinque paululum hiante, subæquilaterali, transversim tenuistriatâ, nitente-albâ, marginem versus epidermide stramineâ sericeâ indutâ, ad angulum posticum sordidâ, extremitatibus rotundatis; lunulâ areâque angustis, subexcavatis; umbonibus parvis, compressis.*

THE LITTLE HUSK MACTRA. Shell transversely ovate, a little gaping at each end, nearly equilateral, transversely finely striated, shining white, covered towards the margin with a silken straw-coloured epidermis, darker on the posterior angle, extremities rounded; lunule and area narrow, rather excavated; umboes small, compressed.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Mouth of the Gambia, West Africa (in the sands).

A transversely oval thin shining white shell, covered towards the margin with a straw-coloured epidermis, which on the posterior angle and area is wrinkled up into a darker colour.

Species 109. (Mus. Cuming.)

MACTRA CUNEATA. *Mact. testâ trigono-ovatâ, subobliquâ, inæquilaterali, lævigatâ, semipellucidâ, undique purpureâ aut cinereo-violaceâ, latere antico rotundato, postico subangulato-producto; lunulâ areâque distinctis, eleganter plicato-striatis; umbonibus prominulis.*

THE WEDGE-SHAPED MACTRA. Shell triangularly ovate, rather oblique, inequilateral, smooth, semi-pellucid, everywhere purple or ash, violet, anterior side rounded, posterior rather angularly produced; lunule and area distinct, elegantly plicately striated; umboes rather prominent.

CHEMNITZ, Conch. Cab. vol. 6. p. 221. pl. 22. f. 215. *Mactra purpurea*, Spengler.

Hab. Nicobar.

A semitransparent glassy purple shell, smooth except on the area and lunule, which are elegantly striated.

Species 110. (Mus. Cuming.)

MACTRA HEPATICA. *Mact. testâ transversim ovatâ, gibbosissimâ, subæquilaterali, lævigatâ, politâ, ad latera sulcato-striatâ, purpureo-lividâ, latere antico rotundato, postico subattenuato, lunulâ areâque subindistinctis, latis, striatis; umbonibus valdè tumidis.*

THE LIVER-COLOURED MACTRA. Shell transversely ovate, very gibbous, nearly equilateral, smooth, polished, grooved-striated at the sides, purple-livid, anterior side rounded, posterior slightly attenuated; lunule and area rather indistinct, broad, striated; umboes much swollen.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Island of Negros, Philippines; Cuming.

Chiefly distinguished by its swollen gibbous umboes, which gives the shell an *Arca*-like aspect.

Species 111. (Mus. Cuming.)

MACTRA APICINA. *Mact. testâ trigono-ovatâ, versus marginem compressâ, æquilaterali, transversim sulcato-liratâ, versus umbones lævigatâ, albâ, nitente, lateribus subæqualiter rotundatis; lunulâ areâque magnis, eleganter plicato-striatis; umbonibus parvis, centralibus, oppositis, violaceo tinctis.*

THE TIPPED MACTRA. Shell triangularly ovate, compressed towards the margin, equilateral, transversely groove-ridged, smooth towards the umboes, white, shining, sides nearly equally rounded; lunule and area large, elegantly plicately striated; umboes small, central, opposite, tipped with violet.

DESHAYES, Pro. Zool. Soc. 1854.

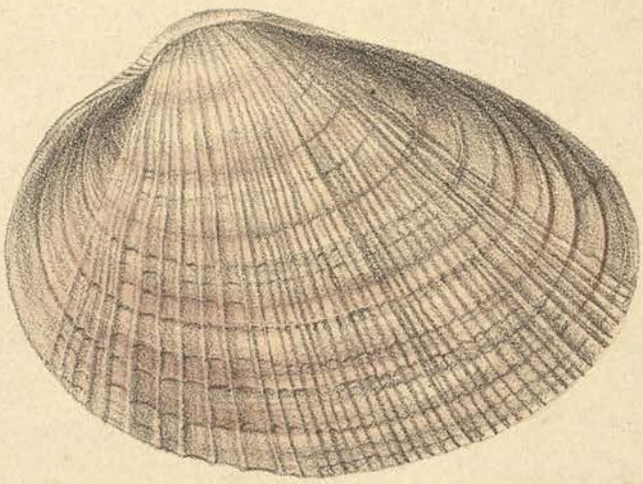
Hab. ——?

An equilateral wedge-shaped species, polished white, with the umboes tipped with violet.

112

113

114



115

116

117

118

Sowerby del et lith

Vincent Brooks Imp.

MACTRA.

PLATE XX.

Species 112. (Mus. Cuming.)

MACTRA ÆGYPTIACA. *Mact. testâ transversim oblongâ, valdè inæquilaterali, utrinque hiante, tenuiculâ, candidâ, versus extremitates epidermide tenui indutâ, densè radiatim irregulariter acutè liratâ, lirarum interstitiis cancellato-striatis, latere antico obtusè rotundato, postico multo longiore, attenuato-rotundato, compresso; extremitatibus liris parvis obliquè divergentibus exsculptis.*

THE EGYPTIAN MACTRA. Shell transversely oblong, very inequilateral, gaping at each end, rather thin, white, covered towards the extremities with a thin epidermis, densely radiately irregularly sharply ridged, interstices between the ridges cancellately striated, anterior side obtusely rounded, posterior much the longer, attenuately rounded and compressed; extremities sculptured with fine obliquely diverging ridges.

CHEMNITZ, Conch. Cab. vol. ii. p. 218. pl. 200. f. 1955–6.
Lutraria Ægyptiaca, Hanley.

Hab. Ceylon; E. L. Layard.

This species, which M. Deshayes ascribes to the *M. Ægyptiaca* of Chemnitz, should properly have another name. The specimen here figured is from Ceylon.

Species 113. (Mus. Cuming.)

MACTRA SOLANDRI. *Mact. testâ transversim ovatâ, subcuneiformi, inæquilaterali, tenui, candidâ, irregulariter radiatim acutè liratâ, liris posticis distantioribus et acutè elevatis, latere antico rotundato, postico longiore, hiante; umbonibus subappressis.*

SOLANDER'S MACTRA. Shell transversely ovate, somewhat wedge-shaped, inequilateral, thin, white, irregularly radiately sharply ridged, posterior ridges more distant, and sharply raised, anterior side rounded, posterior longer, gaping; umboes rather appressed.

Spisula Solandri, Gray, Ann. and Mag. Nat. Hist. 1837. p. 373.

Hab. Moluccas.

A thin white shell, gaping at the posterior end, with a somewhat *Petricola*-like aspect; the posterior ridges are peculiar in being more distant and sharply raised.

Species 114. (Mus. Cuming.)

MACTRA CALIFORNICA. *Mact. testâ transversim oblongâ, inæquilaterali, lævigatâ vel subrudè concentricè striatâ, calcareo-albâ, epidermide flavidâ indutâ, lateralibus subæqualiter rotundatis, postico longiore; umbonibus minutis, approximatis.*

THE CALIFORNIAN MACTRA. Shell transversely oblong, inequilateral, smooth, or rudely concentrically striated, chalk-white, covered with a yellow epidermis, sides nearly equally rounded, posterior side the longer; umboes very small, close.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. California.

This species is not distinguished by any peculiarity of form or sculpture, and has very much the appearance of a small *Mya*.

Species 115. (Mus. Cuming.)

MACTRA RUGOSA. *Mact. testâ transversè ovatâ, gibbosâ, utrinque hiante, valdè inæquilaterali, fuscescente-albâ, calcareâ, radiatim irregulariter liratâ, ad extremitates lævigatâ, latere antico brevissimo, rotundato, postico oblongo, producto; umbonibus parvis, appressis, approximatis.*

THE ROUGH MACTRA. Shell transversely ovate, gibbous, gaping at each end, very inequilateral; brownish-white, chalky, radiately irregularly ridged, smooth at the extremities, anterior side very short, rounded, posterior oblong, produced; umboes small, appressed, close.

CHEMNITZ, Conch. Cab. vol. vi. p. 236. pl. 24. f. 236.
Lutraria rugosa, Lamarck.
Spisula rugosa, Gray.

Hab. Faro, Portugal.

A large rough species, very irregularly radiately ridged, except at the extremities, which are smooth.

Species 116. (Mus. Cuming.)

MACTRA THRACIOIDES. *Mact. testâ ovatâ, anticè gibbosâ, utrinque hiante, inæquilaterali, tenui, opaco-albâ, concentricè densè fibroso-striatâ, obliquè undulatim corrugato-plicatâ, latere antico rotundato, postico*

compressè attenuato; lunulâ subcordatâ; umbonibus parvis, appressis.

THE THRACIA-LIKE MACTRA. Shell ovate, gibbous anteriorly, gaping at both ends, inequilateral, thin, opake-white, concentrically densely fibrous-striated, obliquely undulately wrinkle-plaited, anterior side rounded, posterior compressly attenuated; lunule subcordate; umboes small, appressed.

ADAMS and REEVE, Zool. Voy. Samarang, Moll. p. 81. pl. 23. f. 8.

Hab. Eastern Seas; Belcher.

The chief peculiarity of this species consists in the waved rib-like plaits undulating upwards on the posterior side, contrary to the curious fibrous-like striæ of growth.

Species 117. (Mus. Cuming.)

MACTRA CAPILLACEA. *Mact. testâ transversè oblongâ, valdè inæquilaterali, utrinque hiante, tenui, candidâ, epidermide stramineâ indutâ, concentricè rudè striatâ, radiatim subtiliter undulato-corrugatim striatâ, latere antico brevissimo, rotundato, postico compresso-producto, subrostrato; umbonibus parvis.*

THE STRINGY MACTRA. Shell transversely oblong, very inequilateral, gaping at both ends, thin, white, covered with a light straw-coloured epidermis, concentrically rudely striated, radiately finely wave-wrinkle striated, anterior side very short, rounded, posterior compressly produced, somewhat beaked; umboes small.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Philippines and mouth of the Indus.

A delicate posteriorly produced species, distinguished by a striking peculiarity of sculpture, the surface being rayed with fine close-set cross-waved wrinkled striæ. It has been found of a very much larger size than that of the shell here figured.

Species 118. (Mus. Cuming.)

MACTRA PELLUCIDA. *Mact. testâ transversim oblongâ, compressâ, utrinque hiante, inæquilaterali, albâ, sub lente minutissimè decussatim striatâ, versus margines epidermide tenui flavicante indutâ, latere antico rotundato, postico subproducto; umbonibus parvis, approximatis.*

THE PELLUCID MACTRA. Shell transversely oblong, compressed, gaping at both ends, inequilateral, white, beneath the lens very minutely finely decussately striated, covered towards the margins with a thin yellowish epidermis, anterior side rounded, posterior rather produced; umboes small, close.

CHEMNITZ, Conch. Cab. vol. vi. p. 235. pl. 24. f. 234. *Mactra depressa*, Lamarck.

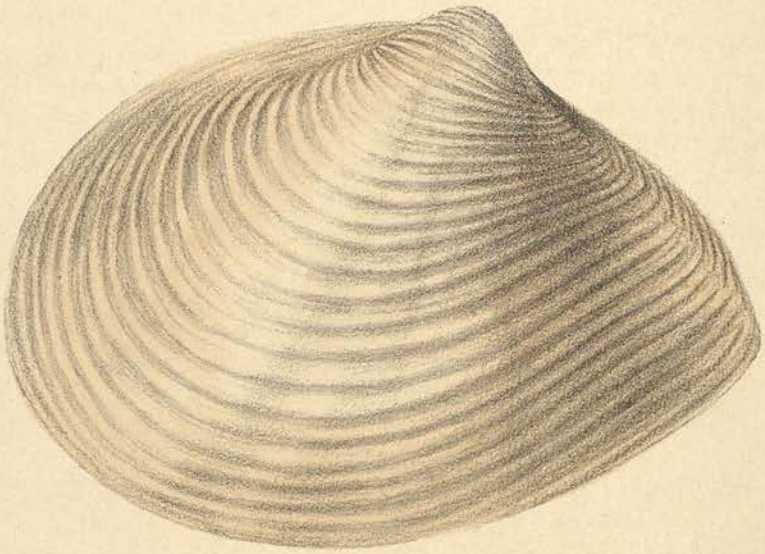
Hab. Bay of Manila.

A smooth, rather compressed species, of which the surface has a somewhat silky appearance, occasioned by extremely minute crossed striæ.

119

120

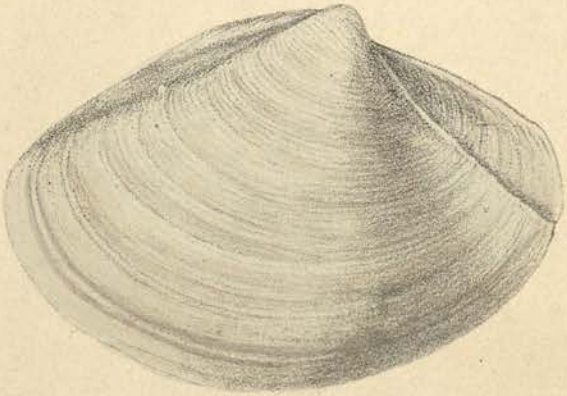
121



122

123

124



125

Sowerby del et lith.

Vincent Brooks Imp.

MACTRA.

PLATE XXI.

Species 119. (Mus. Cuming.)

MACTRA ROSTRALIS. *Mact. testâ transversim ovatâ, posticè compresso-rostratâ, albâ, tenuissimâ, pellucido-vitreâ, subæquilaterali, latere antico paulo breviore, concentricè undato-plicatâ, et tenuissimè obliquè striatâ; lunulâ distinctâ; umbonibus parvis.*

THE BEAKED MACTRA. Shell transversely ovate, posteriorly compressly beaked, white, very thin, transparent, glassy, subequilateral, anterior side a little the shorter, concentrically undulately plicated, very finely obliquely striated; lunule distinct; umboes small.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. China Seas?

A very thin transparent glassy shell, beaked on the posterior side, which is the shorter, concentrically sculptured with waved plaits converging over the posterior side, as in *M. Thracioides*.

Species 120. (Mus. Cuming.)

MACTRA SENEGALENSIS. *Mact. testâ transversim oblongâ, compressâ, inæquilaterali, tenui, pellucido-vitreâ, concentricè undato-plicatâ et tenuissimè obliquè striatâ, latere antico rotundato, postico longiore, carinato et truncato; umbonibus parvis.*

THE SENEGAL MACTRA. Shell transversely oblong, compressed, inequilateral, thin, transparent, glassy, concentrically wave-plaited, and very finely obliquely striated, anterior side rounded, posterior longer, keeled and truncated; umboes small.

PHILIPPI, Zeitschrift für Malac. 1849, p. 27.

Hab. Senegal.

A thin glassy *Thracia*-like species, of which the posterior end is finely keeled and truncated.

Species 121. (Mus. Cuming.)

MACTRA PLICATILIS. *Mact. testâ transversim oblongâ, subangustâ, medio compressâ, subæquilaterali, tenui, pellucido-vitreâ, epidermide fuscescente indutâ, undato-plicatâ et subtilissimè obliquè striatâ, latere antico rotundato, postico sublongiore, tenuicarinato et truncato; umbonibus minutis.*

THE PLAITED MACTRA. Shell transversely oblong, rather narrow, impressed in the middle, nearly equilateral, thin, transparent, glassy, covered with a brownish epidermis, anterior side rounded, posterior rather longer, wave-plaited and very finely obliquely striated, finely keeled and truncated; umboes very small.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Philippines.

Of a narrower transversely oblong form than the preceding species, but very similarly sculptured.

Species 122. (Mus. Cuming.)

MACTRA CANALICULATA. *Mact. testâ ovatâ, anticè obliquè tumidâ et gibbosâ, posticè compresso-rostratâ, paululum hiante, inæquilaterali, latere antico multo majore, tenui, candidâ, epidermide stramineâ indutâ, concentricè irregulariter plicato-costatâ, radiatim peculiariter tenuè corrugato-striatâ; lunulâ oblongo-cordatâ; umbonibus parvis, approximatis.*

THE CHANNELLED MACTRA. Shell ovate, anteriorly obliquely swollen and gibbous, posteriorly compressly beaked, a little gaping, inequilateral, anterior side much the larger, thin, white, covered with a straw-coloured epidermis, concentrically irregularly plicately ribbed, radiately peculiarly finely wrinkle-striated; lunule oblongo-cordate; umboes small, close.

Lutraria canaliculata, Say.

Mactra Campechensis, Gray in Wood Ind. Test. Supp.

Hab. South Carolina.

This fine shell is what might be termed a reversed shell, the anterior side being the larger, swollen and obliquely gibbous, while the posterior is smaller and compressly beaked.

Species 123. (Mus. Cuming.)

MACTRA ANATINOIDES. *Mact. testâ ovatâ, inæquilaterali, anticè obliquè tumidâ, posticè breviter truncato, hiante, pellucido-albâ, subvitreâ, concentricè irregulariter striatâ et obscurè plicatâ, ad margines epidermide indutâ.*

THE ANATINA-LIKE MACTRA. Shell ovate, inequilateral, anteriorly obliquely swollen, posteriorly rather shortly truncated, gaping, pellucid-white, rather glassy, concentrically irregularly striated and obscurely plicated, covered with an epidermis at the margins.

Mactra tenera? Deshayes (not of Gray in Wood Index Test. Supp.).

Hab. ——?

A thin swollen pellucid-white shell, truncated and gaping at the posterior end, with very much the aspect of an *Anatina*.

Species 124. (Mus. Cuming.)

MACTRA PELLICULA. *Mact. testâ abbreviato-ovatâ, inæquilaterali, anticè rotundatâ et tumidâ, posticè rostratâ et truncatâ, hiante, tenuissimâ, pellucido-albâ, subrudè striatâ; umbonibus parvis, acutis.*

THE PELLICLE MACTRA. Shell shortly ovate, inequilateral, anteriorly rounded and swollen, posteriorly beaked and truncated, gaping, very thin, pellucid-white, rather rudely striated; umboes small, sharp.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Japan.

Of a thin transparent pellicle-like substance, of a shorter and more beaked form than that of the preceding species.

Species 125. (Mus. Cuming.)

MACTRA NUTTALLII. *Mact. testâ ovatâ, plano-compressâ, inæquilaterali, pellucido-albâ, concentricè tenuisulcatâ et striatâ, striis flexuosis radiantibus minutissimè cancellatâ; latere antico multo majore, supernè declivi-angulato, postico coarctato, compresso-rostrato, carinato, hiante, extremitatibus lamellato-recurvis; lunulâ perampliter cordatâ; umbonibus parvis, acutiusculis.*

NUTTALL'S MACTRA. Shell ovate, flatly compressed, inequilateral, transparent white, concentrically finely grooved and striated, very minutely cancellated with flexuous radiating striæ; anterior side much the larger, angularly slanting at the upper part, posterior side contracted, compressly beaked, keeled, gaping, with the extremities lamellarly recurved; lunule largely cordate; umboes small, rather sharp.

Lutraria (*Cyptodon*) *Nuttallii*, Conrad, Journ. Acad. Nat. Sci. Philadelphia, vol. vii. p. 235. pl. 18. f. 1.

Mactra recurva, Gray in Wood Index. Test. Supp.

Hab. South Carolina.

A very characteristic transparent white compressed species, peculiarly contracted on the posterior side, with the extremities lamellarly curved outwards.

MACTRA.

	Plate.	Species.
achatina, *Chemnitz*	XII.	51
Adansoni, *Philippi*	XI.	49
adspersa, Dunker	XII.	51
Ægyptiaca, *Chemnitz*	XX.	112
æquilatera, *Deshayes*	IV.	14
alata, *Spengler*	VIII.	29
albina, Deshayes	III.	12
Anatinoides, *Reeve*	XXI.	123
angulata, *Gray*	IX.	34
angulifera, *Deshayes*	XVI.	83
angusta, *Deshayes*	XVIII.	93
antiquata, *Spengler*	VI.	22
Aphrodina, *Deshayes*	XIX.	105
apicina, *Deshayes*	XIX.	111
aspersa, *Sowerby*	XIV.	65
attenuata, *Deshayes*	XVIII.	97
australis, Lamarck	X.	39
bilineata, *C. B. Adams*	XV.	72
Brasiliana, Lamarck	XI.	47
Byronensis (*Mulinia*), Gray	XV.	77
Californica, *Deshayes*	XX.	114
Campechensis, Gray	XXI.	122
canaliculata (*Lutraria*), Say	XXI.	122
capillacea, *Deshayes*	XX.	117
carinata, Lamarck	VIII.	29
carinulata, *Deshayes*	X.	38
Chemnitzii, Gray	VI.	22
complanata, *Deshayes*	XII.	54
contraria, *Deshayes*	XVII.	86
corallina, *Linnæus*	XI.	50
corbiculoides, *Deshayes*	XVIII.	98
Corbuloides, *Deshayes*	XIX.	103
cordiformis, *Deshayes*	II.	6
cornea, *Deshayes*	XV.	75
crassatella, Lamarck	X.	42
Cumingii, *Deshayes*	VI.	24
cuneata, *Chemnitz*	XIX.	109
cyprinus (*Lutraria*), Gray	X.	37
decora, *Deshayes*	XVI.	80
deltoides, Collard	XVII.	90
depressa, Lamarck	XX.	118
depressa, *Spengler*	XIV.	67
discors, *Gray*	V.	17
dissimilis, *Deshayes*	XIII.	59
dolabrata, *Deshayes*	XIX.	107
Donaciformis (*Mulinia*), Gray	XIII.	62
Dysoni, *Deshayes*	XIII.	64
edulis, *King*	VIII.	32
egena, *Deshayes*	XIV.	71
elegans, *Sowerby*	XVII.	89
elliptica, *Brown*	XVIII.	101
elongata, *Quoy*	X.	43
epidermia, *Deshayes*	III.	11
Euxinica, Krynicki	XVIII.	94
exalbida (*Mulinia*), Gray	XV.	78
eximia, *Deshayes*	VIII.	31
exoleta, *Gray*	IV.	16
explanata, *Deshayes*	XIV.	70
fasciata, *Lamarck*	XII.	52
fragilis, *Chemnitz*	XI.	47
gibbosula, *Deshayes*	XVI.	79
gigantea, Lamarck	II.	8
glabrata, Schroeter	X.	39
glauca, *Born*	IV.	13
helvacea, Chemnitz	IV.	13
hians, *Philippi*	VII.	28
hepatica, *Deshayes*	XIX.	110
inæqualis, *Deshayes*	XVII.	87
incarnata, *Deshayes*	XIII.	61
incongrua, *Deshayes*	XVIII.	100
inflata, *Brown*	II.	7
lactea, Chemnitz	XI.	50
lactea, Poli	XVII.	90
lactea, Potiez and Mich.	IV.	15
lævis, *Chemnitz*	VII.	27
Largillierti, *Philippi*	VI.	23
lateralis, *Say*	XVIII.	99
lilacea ?, Lamarck	XI.	49
lurida, *Philippi*	XVIII.	96
Luzonica, *Deshayes*	XVI.	81
maculata *Chemnitz*	XII.	56
maculata, Hanley	XII.	51
maculosa, Lamarck	XII.	51
maxima (*Lutr.*) Middendorf	I.	4
mera, *Deshayes*	XVI.	82
Meretriciformis, *Deshayes*	V.	18
mitis, *Deshayes*	X.	41
Murchisoni, *Deshayes*	XV.	76
Neapolitana, Poli	IV.	13
nitida, *Schroeter*	XI.	46
nucleus, *Conrad*	XIX.	102
Nuttallii, (*Lutraria*) Conrad	XXI.	125

Hab. ——?

A thin swollen pellucid-white shell, truncated and gaping at the posterior end, with very much the aspect of an *Anatina*.

Species 124. (Mus. Cuming.)

MACTRA PELLICULA. *Mact. testâ abbreviato-ovatâ, inæquilaterali, anticè rotundatâ et tumidâ, posticè rostratâ et truncatâ, hiante, tenuissimâ, pellucido-albâ, subrudè striatâ; umbonibus parvis, acutis.*

THE PELLICLE MACTRA. Shell shortly ovate, inequilateral, anteriorly rounded and swollen, posteriorly beaked and truncated, gaping, very thin, pellucid-white, rather rudely striated; umboes small, sharp.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Japan.

Of a thin transparent pellicle-like substance, of a shorter and more beaked form than that of the preceding species.

Species 125. (Mus. Cuming.)

MACTRA NUTTALLII. *Mact. testâ ovatâ, plano-compressâ, inæquilaterali, pellucido-albâ, concentricè tenuisulcatâ et striatâ, striis flexuosis radiantibus minutissimè cancellatâ; latere antico multo majore, supernè declivi-angulato, postico coarctato, compresso-rostrato, carinato, hiante, extremitatibus lamellato-recurvis; lunulâ perampliter cordatâ; umbonibus parvis, acutiusculis.*

NUTTALL'S MACTRA. Shell ovate, flatly compressed, inequilateral, transparent white, concentrically finely grooved and striated, very minutely cancellated with flexuous radiating striæ; anterior side much the larger, angularly slanting at the upper part, posterior side contracted, compressly beaked, keeled, gaping, with the extremities lamellarly recurved; lunule largely cordate; umboes small, rather sharp.

Lutraria (*Cyptodon*) *Nuttallii*, Conrad, Journ. Acad. Nat. Sci. Philadelphia, vol. vii. p. 235. pl. 18. f. 1.

Mactra recurva, Gray in Wood Index. Test. Supp.

Hab. South Carolina.

A very characteristic transparent white compressed species, peculiarly contracted on the posterior side, with the extremities lamellarly curved outwards.

MACTRA.

	Plate.	Species.
achatina, *Chemnitz*	XII.	51
Adansoni, *Philippi*	XI.	49
adspersa, Dunker	XII.	51
Ægyptiaca, *Chemnitz*	XX.	112
æquilatera, *Deshayes*	IV.	14
alata, *Spengler*	VIII.	29
albina, Deshayes	III.	12
Anatinoides, *Reeve*	XXI.	123
angulata, *Gray*	IX.	34
angulifera, *Deshayes*	XVI.	83
angusta, *Deshayes*	XVIII.	93
antiquata, *Spengler*	VI.	22
Aphrodina, *Deshayes*	XIX.	105
apicina, *Deshayes*	XIX.	111
aspersa, *Sowerby*	XIV.	65
attenuata, *Deshayes*	XVIII.	97
australis, Lamarck	X.	39
bilineata, *C. B. Adams*	XV.	72
Brasiliana, Lamarck	XI.	47
Byronensis (*Mulinia*), Gray	XV.	77
Californica, *Deshayes*	XX.	114
Campechensis, Gray	XXI.	122
canaliculata (*Lutraria*), Say	XXI.	122
capillacea, *Deshayes*	XX.	117
carinata, Lamarck	VIII.	29
carinulata, *Deshayes*	X.	38
Chemnitzii, Gray	VI.	22
complanata, *Deshayes*	XII.	54
contraria, *Deshayes*	XVII.	86
corallina, *Linnæus*	XI.	50
corbiculoides, *Deshayes*	XVIII.	98
Corbuloides, *Deshayes*	XIX.	103
cordiformis, *Deshayes*	II.	6
cornea, *Deshayes*	XV.	75
crassatella, Lamarck	X.	42
Cumingii, *Deshayes*	VI.	24
cuneata, *Chemnitz*	XIX.	109
cyprinus (*Lutraria*), Gray	X.	37
decora, *Deshayes*	XVI.	80
deltoides, Collard	XVII.	90
depressa, Lamarck	XX.	118
depressa, *Spengler*	XIV.	67
discors, *Gray*	V.	17
dissimilis, *Deshayes*	XIII.	59
dolabrata, *Deshayes*	XIX.	107
Donaciformis (*Mulinia*), Gray	XIII.	62
Dysoni, *Deshayes*	XIII.	64
edulis, *King*	VIII.	32
egena, *Deshayes*	XIV.	71
elegans, *Sowerby*	XVII.	89
elliptica, *Brown*	XVIII.	101
elongata, *Quoy*	X.	43
epidermia, *Deshayes*	III.	11
Euxinica, Krynicki	XVIII.	94
exalbida (*Mulinia*), Gray	XV.	78
eximia, *Deshayes*	VIII.	31
exoleta, *Gray*	IV.	16
explanata, *Deshayes*	XIV.	70
fasciata, *Lamarck*	XII.	52
fragilis, *Chemnitz*	XI.	47
gibbosula, *Deshayes*	XVI.	79
gigantea, Lamarck	II.	8
glabrata, Schroeter	X.	39
glauca, *Born*	IV.	13
helvacea, Chemnitz	IV.	13
hians, *Philippi*	VII.	28
hepatica, *Deshayes*	XIX.	110
inæqualis, *Deshayes*	XVII.	87
incarnata, *Deshayes*	XIII.	61
incongrua, *Deshayes*	XVIII.	100
inflata, *Brown*	II.	7
lactea, Chemnitz	XI.	50
lactea, Poli	XVII.	90
lactea, Potiez and Mich.	IV.	15
lævis, *Chemnitz*	VII.	27
Largillierti, *Philippi*	VI.	23
lateralis, *Say*	XVIII.	99
lilacea ?, Lamarck	XI.	49
lurida, *Philippi*	XVIII.	96
Luzonica, *Deshayes*	XVI.	81
maculata *Chemnitz*	XII.	56
maculata, Hanley	XII.	51
maculosa, Lamarck	XII.	51
maxima (*Lutr.*) Middendorf	I.	4
mera, *Deshayes*	XVI.	82
Meretriciformis, *Deshayes*	V.	18
mitis, *Deshayes*	X.	41
Murchisoni, *Deshayes*	XV.	76
Neapolitana, Poli	IV.	13
nitida, *Schroeter*	XI.	46
nucleus, *Conrad*	XIX.	102
Nuttallii, (*Lutraria*) Conrad	XXI.	125

	Plate.	Species.
obesa, *Deshayes*	V.	19
oblonga, Say	XI.	47
olorina, *Philippi*	IX.	35
opposita, *Deshayes*	XVIII.	95
ornata, *Gray*	XIII.	58
ovalina, *Lamarck*	XIV.	66
ovalis, *Say*	IX.	36
ovata (*Spisula*), Gray	VIII.	30
pellicula, *Deshayes*	XXI.	124
pellucida, *Chemnitz*	XX.	118
plicataria, *Linnæus*	VII.	26
plicatilis, *Deshayes*	XXI.	121
polita, *Chemnitz*	X.	39
ponderosa, Philippi	IX.	36
pulchra, *Gray*	XIII.	60
pura, *Deshayes*	XII.	53
purpurea, Spengler	XIX.	109
quadrangularis, *Deshayes*	I.	3
radiolata, *Deshayes*	XVII.	91
recurva, Gray	XXI.	125
Reevei, *Deshayes*	XVI.	85
Reevesii, *Deshayes*	XVII.	92
rostralis, *Deshayes*	XXI.	119
rostrata, *Spengler*	XIX.	104
rotundata, Gmelin	IV.	15
rufescens, *Lamarck*	III.	9
rugosa, *Chemnitz*	XX.	115
Sauliæ, *Gray*	XIV.	68
Sayi (*Spisula*), Gray	IX.	33
scalpellum, *Deshayes*	XIX.	106
semistriata, *Deshayes*	XII.	55
semisulcata, *Deshayes*	XI.	48
Senegalensis, *Philippi*	XXI.	120
sericea, *Deshayes*	III.	10
setosa, Quoy	XII.	56
silicula, *Deshayes*	XIX.	108
Solandri (*Spisula*), Gray	XX.	113
solida, Payraudeau	IV.	15
solidissima, *Chemnitz*	II.	8
Spengleri, Born	VII.	27
Spengleri, *Linnæus*	X.	40
squalida, Lamarck	XII.	56
straminea, Lamarck	XI.	46
striatella, *Lamarck*	III.	12
stultorum, *Linnæus*	IV.	15
sublanceolata, *Deshayes*	XV.	24
subplicata, Lamarck	VII.	27
subrostrata, *Deshayes*	VII.	25
subtruncata, Donovan	X.	42
subtruncata, *Montagu*	XVII.	90
sulcataria, *Deshayes*	II.	5
symmetrica, *Deshayes*	XVI.	84
Thracioides, *Ad. & Reeve*	XX.	116
Tellinoides, *Conrad*	XV.	73
tenera, Deshayes	XXI.	123
transversa, *Deshayes*	XVII.	88
triangula, *Renieri*	XVIII.	94
triangularis, *Lamarck*	I.	1
tristis, *Deshayes*	XIV.	69
truncata, Brown	XVII.	90
truncata, *Montagu*	X.	42
tumida, *Chemnitz*	VI.	21
turgida, Gmelin	VI.	21
typica, Gray	XI.	45
velata, *Philippi*	V.	20
Veneriformis, *Deshayes*	I.	2
violacea, *Chemnitz*	XII.	57
virgo, *Deshayes*	XIII.	63
vitrea, *Gray*	XI.	44

MONOGRAPH

OF THE GENUS

LUTRARIA.

"I loved to walk where none had walked before,
About the rocks that ran along the shore:
Here had I favourite stations where I stood,
And heard the murmurs of the ocean-flood."—*Crabbe.*

1

2

3

4

Sowerby del. et lith.

Vincent Brooks Imp.

LUTRARIA.

PLATE I.

Genus LUTRARIA, *Lamarck.*

Testa æquivalvis, inæquilateralis, oblongo-ovata, plerumque compressiuscula, lateribus hians, sordidè albâ, epidermide fuscâ vel olivaceo-fuscâ plus minus induta. Cardo centralis, latus, dentibus duobus plano-cochleariformibus laminâ trigonâ erectâ, dentibus lateralibus nullis. Impressio muscularis pallii sinu magno.

Shell equivalve, inequilateral, oblong-ovate, generally rather compressed, gaping at the sides, dirty-white, covered more or less with a brown or olive-brown epidermis. Hinge central, broad, with two flat spoon-like teeth, and an erect triangular lamina, no lateral teeth. Muscular impression of the mantle with a large sinus.

Of the miscellaneous assemblage of species described by Lamarck under this head, only two remain as true representatives of the genus, *Lutraria oblonga* and *L. elliptica*, both inhabitants of the British Seas. More than a dozen species from foreign sources have since been added of the same exact type, and we have the pleasure of illustrating them as a very natural and well-defined group. The most abnormal forms are those which have been separated by Mr. Gray under the generic title of *Zenatia*, comprising *L. acinaces, Deshayesii*, and *Cumingiana;* and *L. lanceolata*, which is the genus *Resania* of Mr. Gray. In the last the interior of each valve is characterized by two very prominent ledges converging from the hinge, on one of which rests the broad spoon-shaped tooth, as represented in Plate V. They are all of a smooth dull colourless hue, more or less covered with a dirty-brown or olive epidermis, and present no sculpture beyond striæ or wrinkles following the lines of growth. The species are limited in number and widely distributed, being from Australia, New Zealand, Moluccas, Philippines, China, and the Cape of Good Hope. They are all natives of the Old World.

Species 1. (Mus. Cuming.)

LUTRARIA DESHAYESII. *Lutr. testâ elongato-oblongâ, tenuiculâ, subangustâ, concentricè densè striatâ, striis subrugæformibus; lateribus æqualiter rotundatis, antico prælongo, valdè hiante; ferrugineo-carneâ, epidermide viridi-olivaceâ indutâ.*

DESHAYES' LUTRARIA. Shell elongately oblong, thinnish, rather narrow, concentrically densely striated, striæ somewhat wrinkle-like; sides equally rounded, the anterior very long, much gaping; rust-flesh-tinged, covered with a greenish-olive epidermis.

Lutraria Solenoides, Deshayes (not of Lamarck).

Hab. New Zealand; Earl.

A thin delicate *Solen*-like shell, with the peculiar shelf-like tooth which serves to characterize Mr. Gray's genus *Zenatia*, conspicuously developed.

Species 2. (Mus. Cuming.)

LUTRARIA ELONGATA. *Lutr. testâ elongatâ, ventricosiusculâ, latere postico latè rotundato, antico attenuato-rotundato; concentricè irregulariter striatâ, striis medio subobsoletis, ad latera rugæformibus; albidâ, epidermide lutescente-cinereâ indutâ.*

THE ELONGATED LUTRARIA. Shell elongated, rather ventricose, posterior side broadly rounded, anterior attenuately rounded; concentrically irregularly striated, striæ nearly obsolete in the middle, wrinkle-like at the sides; whitish, covered with a yellowish-ash epidermis.

GRAY, Ann. and Mag. Nat. Hist. 1837.

Hab. —— ?

Chiefly distinguished by the subattenuated form of the anterior side of the shell.

Species 3. (Mus. Cuming.)

LUTRARIA ELLIPTICA. *Lutr. testâ ovato-oblongâ, subventricosâ, irregulariter concentricè striatâ, striis hic illic rugæformibus; lateribus subæqualiter rotundatis, antico longiore; incarnato-albâ, epidermide virescente-olivaceâ indutâ.*

THE ELLIPTIC LUTRARIA. Shell ovately oblong, subventricose, irregularly concentrically striated, striæ here and there wrinkle-like; sides nearly equally rounded, anterior the longer; flesh-tinted white, covered with an olive-green epidermis.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 90.

Mactra lutraria, Linnæus.

Hab. Seas of Europe.

This well-known European species, compared with the rest of the genus, has a peculiar *Anodon*-like aspect.

Species 4. (Mus. Cuming.)

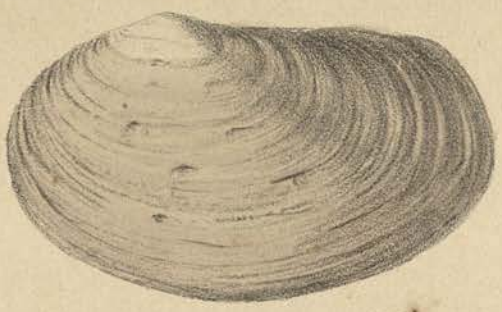
LUTRARIA PHILIPPINARUM. *Lutr. testâ elongato-oblongâ, ventricosâ, subobliquâ, concentricè tenuistriatâ, striis anticis rugæformibus; lateribus subattenuato-rotundatis, antico paulo rostrato, apertè hiante; albidâ, epidermide tenui cinereo-lutescente indutâ.*

THE PHILIPPINE LUTRARIA. Shell elongately oblong, ventricose, rather oblique, concentrically finely striated, anterior striæ wrinkle-like; sides somewhat attenuately rounded, anterior a little beaked, openly gaping; whitish, covered with a thin ash-yellow epidermis.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Philippine Islands; Cuming.

Distinguished by its elongately oblong form and by the more attenuated roundness of the sides, the anterior of which is a little beaked and openly gaping.



5

6

7

8

Sowerby del. et lith.

Vincent Brooks Imp

LUTRARIA.

PLATE II.

Species 5. (Mus. Cuming.)

LUTRARIA CURTA. *Lutr. testâ oblongo-ovatâ, curtâ, subobliquâ, solidiusculâ, ad latera latè hiante, latere postico subattenuato-rotundato, antico abruptè truncato; concentricè rugoso-striatâ, albâ.*

THE SHORT LUTRARIA. Shell oblong-ovate, short, somewhat oblique, rather solid, broadly gaping at the sides, posterior side somewhat attenuately rounded, anterior abruptly truncated; concentrically roughly striated, white.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Philippine Islands.

This species has very much the aspect of an *Anatina*, being much truncated at the anterior side, and more than usually gaping.

Species 6. (Mus. Cuming.)

LUTRARIA ARCUATA. *Lutr. testâ arcuato-oblongâ, subobliquâ; lateribus rotundatis, latè hiantibus, postico attenuatiore; concentricè tenuissimè striatâ, subpellucido-albâ, epidermide eximiâ corneâ fulvescente-cinereâ indutâ.*

THE ARCHED LUTRARIA. Shell arcuately oblong, rather oblique; sides rounded, widely gaping, the posterior the more attenuated; concentrically very finely striated, subtransparent white, covered with a delicate light fulvous-ash horny epidermis.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Philippine Islands.

Beautifully characterized by its elegantly arched growth and delicate texture and epidermis.

Species 7. (Mus. Cuming.)

LUTRARIA OBLONGA. *Lutr. testâ elongato-oblongâ, ventricosâ, subarçuatâ, latere postico attenuato-rotundato, antico latiore, apertè hiante; sordidè albâ, rugoso-striatâ, epidermide cinereo-fuscâ indutâ.*

THE OBLONG LUTRARIA. Shell elongately oblong, ventricose, slightly arched, posterior side attenuately rounded, anterior broader, openly gaping; dirty-white, roughly striated, covered with an ash-brown epidermis.

TURTON, Conch. Dith. Ins. Brit. p. 64. pl. 5. f. 6.

Mya oblonga, Gmelin.

Chama magna, Da Costa.

Mactra hians, Dillwyn.

Lutraria Solenoides, Lamarck.

Lutricola Solenoides, De Blainville.

Hab. European Seas.

Of rough slightly arched growth, ventricose and attenuately rounded at the posterior side.

Species 8. (Mus. Cuming.)

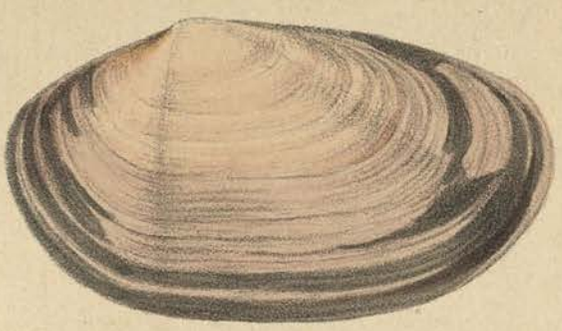
LUTRARIA DISSIMILIS. *Lutr. testâ oblongâ, rectâ, crassiusculâ, rugosâ; lateribus rotundatis, antico sublatè hiante, postico attenuatiore; concentricè striatâ, striis rugosis et irregularibus, incarnato-albâ, epidermide sordidè fuscâ corrugatâ indutâ.*

THE DISSIMILAR LUTRARIA. Shell oblong, straight, rather thick, rough; sides rounded, anterior rather widely gaping, posterior the more attenuated; concentrically striated, striæ rough and irregular, flesh-white, covered with a dirty-brown shrivelled epidermis.

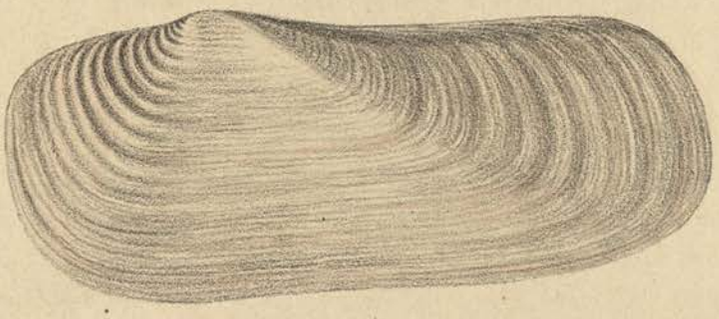
DESHAYES, Pro. Zool. Soc. 1854.

Hab. ——?

A species of very distinctive character, roughly striated with a peculiarly shrivelled epidermis. Locality unknown.



9



10

11

12

Sowerby del. et lith.

Vincent Brooks Imp.

LUTRARIA.

PLATE III.

Species 9. (Mus. Cuming.)

LUTRARIA CAPENSIS. *Lutr. testâ oblongo-ovatâ, latiusculâ, compressâ; lateribus subdeclivibus, subattenuato-rotundatis, latere antico radiatim indentato-impresso; concentricè striatâ, striis ad latera et prope marginem subrugosis; ferrugineo-albâ, epidermide sordidè fuscescente prope marginem indutâ.*

THE CAPE LUTRARIA. Shell oblong-ovate, rather broad, compressed; sides slanting and attenuately rounded, anterior side radiately indently impressed; concentrically striated, striæ rather rough at the sides and near the margin; rust-white, covered near the margin with a dirty light brown epidermis.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Cape of Good Hope.

Rather broader, and more slanting from the umboes to the lateral extremities, than the rest of the species, and compressed towards the margins.

Species 10. (Mus. Cuming.)

LUTRARIA IMPAR. *Lutr. testâ subquadrato-elongatâ, rectâ, tenuiculâ, convexâ; lateribus æqualiter rotundatis; concentricè striatâ, striis ad latera rugæformibus, posticis conspicuè corrugato-liratis, interstitiis profundis; sordidè albâ.*

THE ODD LUTRARIA. Shell somewhat squarely elongated, straight, rather thin, convex; sides equally rounded, concentrically striated, striæ wrinkle-like at the sides, the posterior sides conspicuously wrinkle-ridged, the interstices being deep; dead white.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Moreton Bay, Australia; Strange.

Of this very characteristic species only a dead odd valve has been collected. It is of a straight, squarely elongated, *Solenicurtus*-like form, with the concentric striæ peculiarly puckered on the posterior side into deep wrinkle-ridges.

Species 11. (Mus. Cuming.)

LUTRARIA MAXIMA. *Lutr. testâ elongato-ovatâ, plano-convexâ, prope umbones compressâ, solidiusculâ; lateribus æqualiter rotundatis, concentricè irregulariter striatâ, striis ad latera rugosis; ferrugineo-albâ.*

THE VERY LARGE LUTRARIA. Shell elongately ovate, flatly convex, compressed near the umboes, rather solid; sides equally rounded, irregularly concentrically striated, striæ rough at the sides; rust-white.

JONAS, MS. (Mus. Cuming.)

Hab. China.

A fine species, of simple character, covered, doubtless, with a dark epidermis, but of which there are scarcely traces in the specimen figured.

Species 12. (Mus. Cuming.)

LUTRARIA AUSTRALIS. *Lutr. testâ arcuato-oblongâ, medio gibbosâ, anticè rostratâ, latere postico attenuato-rotundato, antico obliquè producto, latiore, apertè hiante; eburneâ, epidermide corneâ tenuè corrugatâ indutâ.*

THE SOUTHERN LUTRARIA. Shell arcuately oblong, gibbous in the middle, beaked anteriorly, posterior side attenuately rounded, anterior obliquely produced, broader, openly gaping; ivory-white, covered with a thin finely shrivelled horny epidermis.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Moluccas.

A very characteristic species, peculiarly obliquely arched and gibbous, with the anterior end beaked and openly gaping.

13

14

15

16

Sowerby del.et lith.

Vincent Brooks Imp.

LUTRARIA.

PLATE IV.

Species 13. (Mus. Cuming.)

LUTRARIA CUMINGIANA. *Lutr. testâ elongato-oblongâ, tenuiculâ, angustâ, curvatâ, Soleniformi; lateribus æqualiter rotundatis, antico valdè prolongato, subapertè hiante, postico brevi; concentricè densè minutè striatâ, pellucido-albâ, epidermide tenui cinereo-olivaceâ indutâ.*

CUMING'S LUTRARIA. Shell elongately oblong, rather thin, narrow, curved, Solen-shaped; sides equally rounded, the anterior very much prolonged, rather openly gaping, posterior short; concentrically thickly minutely striated, transparent white, covered with a thin ash-olive epidermis.

DESHAYES, Pro. Zool. Soc. 1854.

Zenatia Cumingiana, Gray.

Hab. New Zealand; Earl.

A delicate *Solen*-shaped species, much produced anteriorly, and openly gaping.

Species 14. (Mus. Cuming.)

LUTRARIA ACINACES. *Lutr. testâ subquadrato-elongatâ, valdè compressâ, lævigatâ vel lineis incrementi irregulariter notatâ, latere antico valdè prolongato, latiusculo, hiante, ad umbones obsoletè angulato-carinato, ambobus æqualiter rotundatis; incarnatâ, epidermide corneâ nigricante-olivaceâ versus marginem indutâ.*

THE SCYMITAR LUTRARIA. Shell somewhat squarely elongated, very compressed, smooth or marked irregularly with the lines of growth, anterior side very much prolonged, rather broad, gaping, obsoletely angle-keeled from the umboes, both sides equally rounded; flesh-tinged, covered towards the margins with a horny blackish-olive epidermis.

QUOY, MS. (Mus. Cuming.)

Zenatia acinaces, Gray.

Hab. New Zealand; Earl.

A somewhat broad squarely elongated shell, smooth and very compressed, flesh-tinged, covered towards the margin with a very dark olive epidermis, having somewhat the aspect of a *Sanguinolaria*.

Species 15. (Mus. Cuming.)

LUTRARIA SIEBOLDTII. *Lutr. testâ elongato-ovatâ, curvatâ; lateribus subacutè rotundatis; obliquè rugosè concentricè striatâ, sordidè albâ, epidermide lutescente-olivaceâ indutâ.*

SIEBOLDT'S LUTRARIA. Shell elongately ovate, curved; sides rather acutely rounded; obliquely roughly concentrically striated, dull white, covered with a yellowish-olive epidermis.

DESHAYES, Pro. Zool. Soc. 1854.

Hab. Vancouver's Island; Kellett.

A rather solid shell, of curved concentric growth, the lines being somewhat rough and irregular, covered with a yellowish-olive epidermis.

Species 16. (Mus. Cuming.)

LUTRARIA RHYNCHÆNA. *Lutr. testâ elongato-ovatâ, subventricosâ, anticè rostrato, apertè hiante, concentricè rugoso-striatâ; albidâ, epidermide corneâ lutescente-olivaceâ indutâ.*

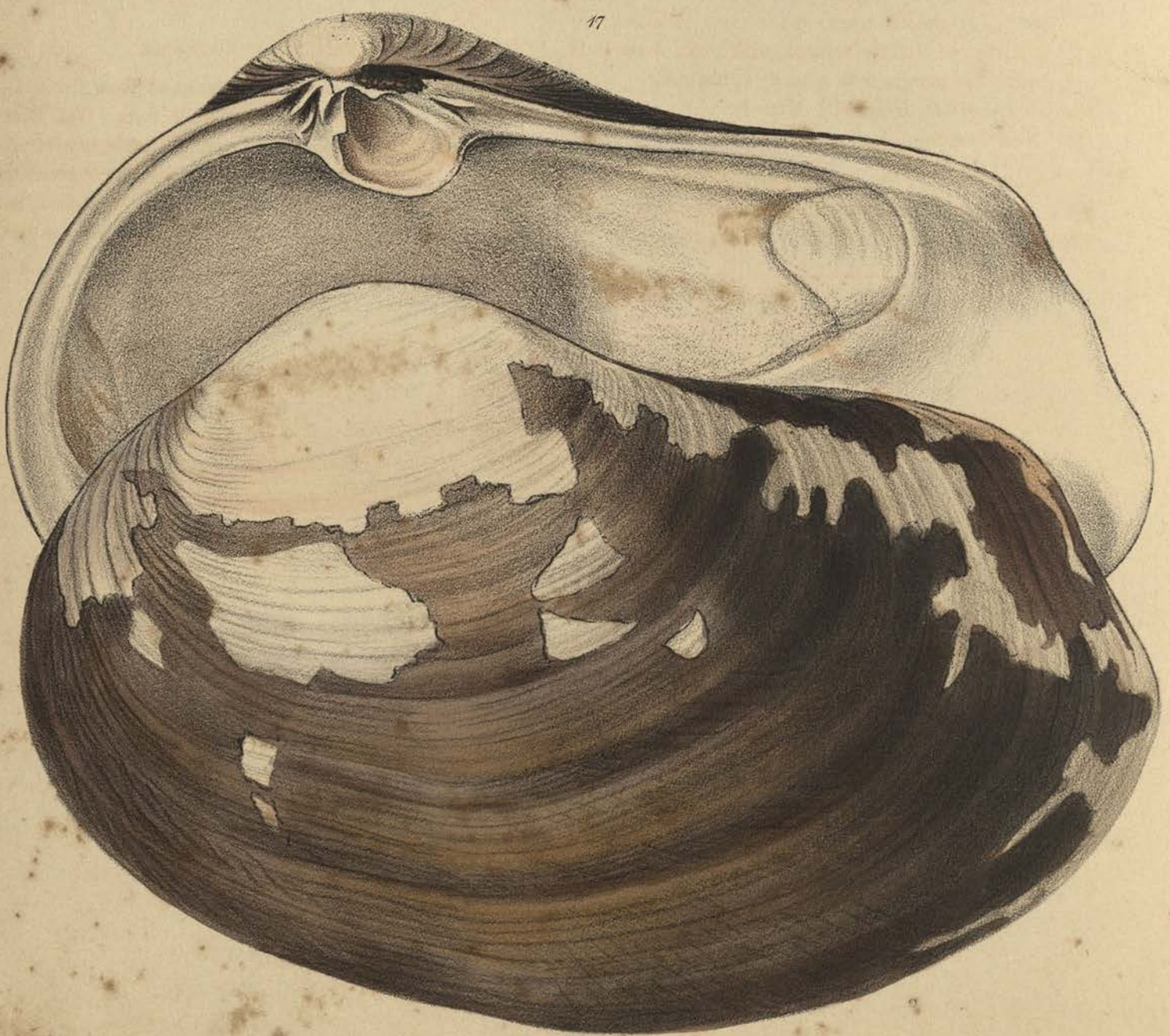
THE BEAKED LUTRARIA. Shell elongately ovate, subventricose, beaked anteriorly, openly gaping, concentrically roughly striated; whitish, covered with a yellow-olive horny epidermis.

JONAS, MS. (Mus. Cuming.)

Hab. Swan River.

Peculiarly distinguished by its ventricose growth, and by the beaked openly gaping structure of the anterior end.

17



18

Sowerby del. et lith.

Vincent Brooks Imp.

LUTRARIA.

PLATE V.

Species 17. (Mus. Cuming.)

LUTRARIA LANCEOLATA. *Lut. testâ oblongâ, compresso-planâ, anticè angulatè attenuatâ, lævigatâ vel concentricè tenuissimè striatâ, cardinis dente cochleariformi, peculiariter angulatim producto, posticè inclinato, sub costâ internâ radiante appresso; carneâ, ferrugineo pallide tinctâ, epidermide corneâ versus marginem indutâ.*

THE LANCEOLATE LUTRARIA. Shell compressly flattened, anteriorly angularly attenuated, smooth, or very finely concentrically striated, spoon-shaped tooth of the hinge peculiarly angularly produced, inclined posteriorly, appressed upon an internal radiating rib; flesh-tinged, faintly stained with rust, covered towards the margin with a horny epidermis.

Resania lanceolata, Gray, MS. Mus. Brit.

Hab. New Zealand; Earl.

Distinguished by the spoon-shaped shelf of the hinge being angularly pressed in the posterior direction upon an internal callous rib, radiating towards the margin.

Species 18. (Mus. Cuming.)

LUTRARIA MAXIMA. *Lut. testâ obliquè oblongâ, ventricosimâ, Panopææformi, anticè hiante, latere postico brevi, rotundato, antico multo longiore, truncato, concentricè striatâ; albidâ, epidermide olivaceâ corneâ deciduâ indutâ.*

THE VERY LARGE LUTRARIA. Shell obliquely oblong, very ventricose, Panopæa-shaped, gaping in front, posterior side short, rounded, anterior much the longer, truncated, concentrically striated; whitish, covered with an olive, horny, deciduous epidermis.

MIDDENDORF, Malacozoologia Rossica, vol. ii. p. 66, pl. 19, f. 1–4.

Hab. St. Juan de Fuca, Upper California.

This fine species is well distinguished from the rest of genus by its ventricose Panopæa-like form. The specimen here figured from Mr. Cuming's collection is of a more elongated form than the typical specimen represented by the Russian conchologist, but equally ventricose and truncated. In the British Museum are specimens in both states of the species.

LUTRARIA.

	Plate.	Species.		Plate.	Species.
acinaces, *Quoy*	IV.	14	impar, *Deshayes*	III.	10
arcuata, *Deshayes*	II.	6	lanceolata, (*Resania*), Gray	V.	17
australis, *Deshayes*	III.	12	larga, *Reeve*	III.	11
Capensis, *Deshayes*	III.	9	maxima, *Middendorf*	V.	18
Cumingiana, *Deshayes*	IV.	13	oblonga (*Mya*), Gmelin	II.	7
curta, *Deshayes*	II.	5	Philippinarum, *Deshayes*	I.	4
Deshayesii, *Reeve*	I.	1	rhynchæna, *Jonas*	IV.	16
dissimilis, *Deshayes*	II.	8	Sieboldtii, *Deshayes*	IV.	15
elliptica, *Lamarck*	I.	3	*Solenoides*, Lamarck	II.	7
elongata, *Gray*	I.	2	*Solenoides*, Deshayes	I.	1

ERRATUM.

Sp. 11. For *L. maxima*, Jonas,—read *L. larga*, Reeve.

MONOGRAPH

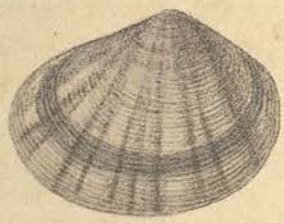
OF THE GENUS

AMPHIDESMA.

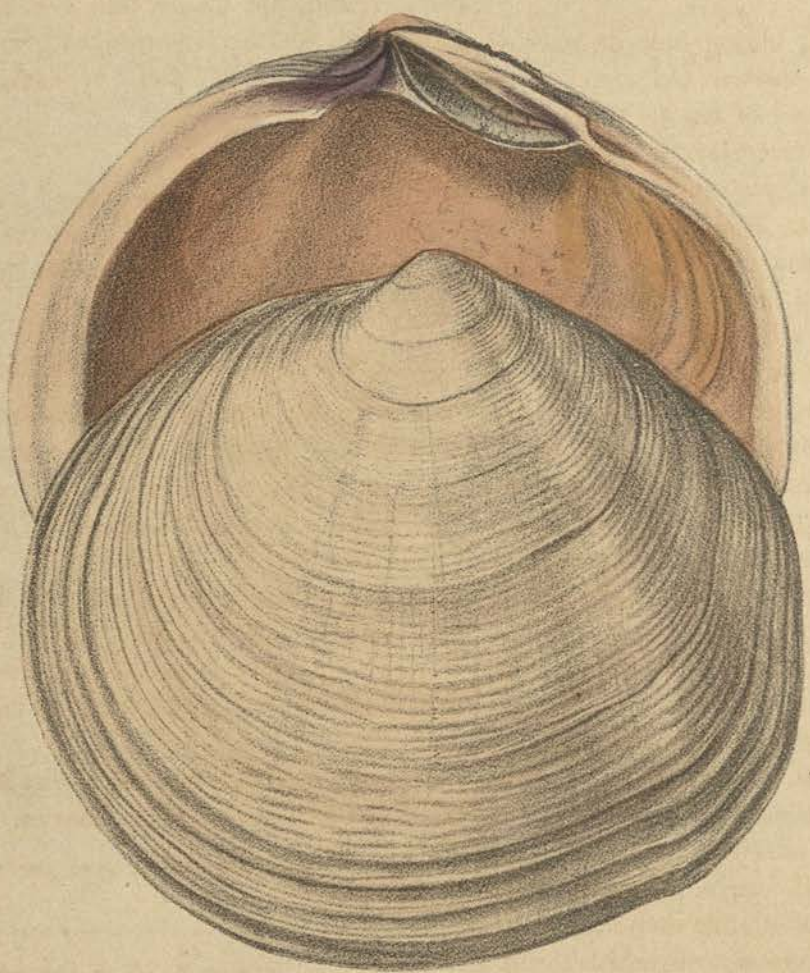
"Whom Nature's works can charm, with GOD himself
Hold converse; grow familiar day by day
With His conceptions, act upon His plan,
And form to His, the relish of their souls."—*Akenside.*

1.

2.



3.



4.

5a.

5b.

6.

Sowerby, del et lith.

F. Reeve, imp.

AMPHIDESMA.

PLATE I.

Genus AMPHIDESMA, *Lamarck.*

Testa æquivalvis, inæquilateralis, oblongo-ovalis vel rotundata, latere postico plerumque breviore, et plus minus flexuoso. Cardo dente unico aut duobus in utrâque valvâ, foveolâ angustâ elongatâ interjacente. Ligamentum duplex, partim tenue, externum, partim crassum, in foveolâ, internum. Impressio muscularis pallii sinu magno.

Shell equivalve, inequilateral, oblong-oval or rounded, posterior side generally shorter, and more or less flexuous. Hinge composed of one or two teeth in each valve, with a narrow elongated pit lying between them. Ligament duplex, part thin, external, part thick, internal, in the pit. Muscular impression of the mantle with a large sinus.

The shells of this genus are chiefly distinguished by a peculiarity in the structure of the hinge, which encloses a strong cartilage internally, within an obliquely elongated pit on the posterior side. The genus as defined by Lamarck contained rather a miscellaneous assemblage of species. Some of these have been transferred to *Thracia*, some to *Mesodesma*, and some to *Syndosmya;* and several referred to this genus by Fleming and others have shared a similar fate. Of the Lamarckian species, *A. variegatum* (*Tellina obliqua*, Wood) may be regarded the type of the genus as now constituted. Mr. Cuming contributed several important new species of this form, from his researches in South America, figured by Mr. Sowerby in his 'Conchological Illustrations,' and the species since collected have enabled me to increase their number in the present monograph to upwards of fifty.

The shells are of an oblong-circular or oval form, with the posterior or cartilage side mostly the shorter, more or less truncated and flexuous. The sculpture consists chiefly of irregular concentric ridges, often in densely packed lamellæ neatly frilled, with the interstices minutely cancellated. The species have all a light and delicate aspect, though in several instances rather solid; some are white, some are painted with rose and pale yellow. There are no British species. The chief localities are Australia, the Philippine Islands, and the western coast of South and Central America.

Species 1. (Mus. Cuming.)

AMPHIDESMA EXARATA. *Amph. testâ oblongo-ovatâ, subobliquè curvatâ, pellucente, albâ, maculis perpaucis roseis pallidè adspersâ, concentricè costatâ, costis tenuibus, subrecurvis, cum interstitiis excavatis, lineis rugæformibus radiatis.*

THE PLOUGHED AMPHIDESMA. Shell oblong-ovate, rather obliquely curved, pellucid, white, faintly sprinkled with a very few rose spots, concentrically ribbed, ribs thin, a little recurved, rayed, together with the deep interstices, with wrinkle-like lines.

ADAMS and REEVE, Moll. Voy. Samarang, p. 81. pl. 24. f. 9.

Hab. Sooloo Sea.

A subtransparent species, rayed with erect delicately recurved ribs, which, together with the deeply grooved interstices, are rayed with wrinkle-like lines.

Species 2. (Mus. Cuming.)

AMPHIDESMA PULCHRA. *Amph. testâ ovali, pallidâ, superficie concentricè striatâ; intus albidâ, purpureo variâ; latere postico breviore, margine antico inclinatâ, striis nonnullis radiantibus, strias incrementi decussantibus.*

THE BEAUTIFUL AMPHIDESMA. Shell oval, pale, surface concentrically striated; whitish within, variegated with purple; posterior side shorter, anterior margin inclined, rayed with a few striæ crossing the striæ of growth.

SOWERBY, Pro. Zool. Soc. 1832, part 2. p. 57.

Hab. Bay of Caraccas, South America.

Resembling *A. obliqua*, but of mores olid *Donax*-like growth.

Species 3. (Mus. Cuming.)

AMPHIDESMA VENUSTA. *Amph. testâ oblongâ, transversâ, ventricosâ, nitidiusculâ, sordidè carneâ, roseo obscurè radiatâ, latere antico multo longiore, rotundato, postico subtruncato, ad marginem ventralem flexuoso; concentricè sulcatâ; intus purpurascente, albo limbatâ.*

THE GRACEFUL AMPHIDESMA. Shell oblong, transverse, ventricose, rather shining, dull flesh-colour, obscurely rayed with rose, anterior side much the longer, posterior slightly truncated, flexuous at the ventral margin; concentrically grooved; purple within, edged with white.

Semele venusta, A. Adams, Pro. Zool. Society, July, 1853.
Hab. West Columbia.

An oblong, faintly rayed, *Tellina*-like species, concentrically somewhat flexuously grooved throughout.

Species 4. (Mus. Cuming.)

Amphidesma corrugata. *Amph. testâ suborbiculari, crassâ, albicante, radiatim striatâ, concentricè rugulosâ; epidermide fuscâ; margine dorsali posticâ rectâ, inclinatâ; intus flavescente-aurantiâ.*

The wrinkled Amphidesma. Shell nearly orbicular, thick, whitish, radiately striated, concentrically finely wrinkled; epidermis brown; posterior dorsal margin straight, inclined; yellowish-orange within.

Sowerby, Pro. Zool. Soc. 1832, part 2. p. 200.

Hab. Peru and Iquiqui, South America (dredged from coarse gravel, in ten fathoms water); Cuming.

A fine large solid subdistorted shell, of an unspotted stone-white hue externally, brilliantly coloured within with yellowish-orange.

Species 5. (Fig. *a*, *b*, Mus. Cuming.)

Amphidesma obliqua. *Amph. testâ oblongo-orbiculatâ, convexo-depressâ, tenui; albido-purpurascente, maculis lituræformibus spadiceis plus minus variegatâ, parte anticâ et mediană liris tenuibus concentricè obliquè sculptâ.*

The variegated Amphidesma. Shell oblong-orbicular, convexly depressed, thin; white-purplish, more or less variegated with fawn blotches, anterior and middle portion of the valves sculptured with fine obliquely concentric ridges.

Tellina obliqua, Wood General Conch. p. 152. pl. 41. f. 4 and 5.

Amphidesma variegatum, Lamarck.

Hab. Brazils (in sandy mud at eight fathoms); Miller.

There is an important character in this species unnoticed by Lamarck. The anterior and middle portion of each valve is sculptured with fine concentric ridges, not ranging parallel with the lines of growth, but a little obliquely across them, well marked in Wood's figure.

Species 6. (Mus. Cuming.)

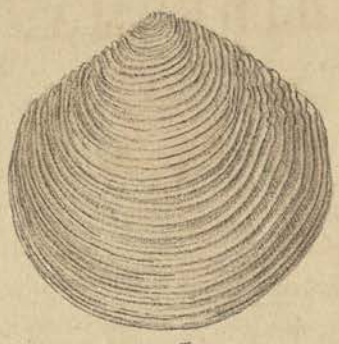
Amphidesma carnicolor. *Amph. testâ orbiculari, latere postico subflexuoso, crassiusculâ, pellucido-albâ, intus marginem versus aurantiâ, concentricè liratâ, liris rudibus, tenuibus, interstitiis rugis densè radiatis.*

The flesh-coloured Amphidesma. Shell orbicular, posterior side a little flexuous, rather thick, transparent white, orange towards the margin in the interior, concentrically ridged, ridges rude, fine, with the interstices densely rayed with wrinkles.

Hanley, Recent Shells, Supp. pl. 12. f. 28.

Hab. Gundulman, island of Bohol, Philippines; Cuming.

A subflexuous rounder species, sculptured with fine, short, irregular ridges, the interstices between which are closely wrinkle-rayed.

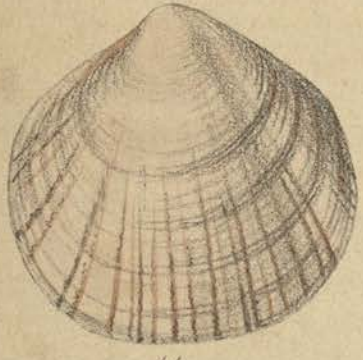


7.

8.

9.

10.



11

12.

13.

Sowerby, del. et lith.

F. Reeve, imp.

AMPHIDESMA.

PLATE II.

Species 7. (Mus. Cuming.)

AMPHIDESMA JUKESII. *Amph. testâ orbiculari, compressiusculâ, albidâ, concentricè lamellosâ, lamellis subincrassatis, eleganter minutè crenulato-fimbriatis, ad latera productis, interstitiis tenuissimè corrugato-liratis, latere antico rotundato, postico angulato, ad marginem ventralem flexuoso; areâ excavatâ utrinque cardinem oblongâ, subprofundâ; intus luteâ.*

JUKES'S AMPHIDESMA. Shell orbicular, rather compressed, whitish, concentrically lamellose, lamellæ rather thickened, elegantly minutely crenulately fimbriated, produced at the sides, interstices very finely wrinkle-edged, anterior side rounded, posterior angled, flexuous at the ventral margin; excavated area on each side of the hinge oblong and rather deep; yellowish within.

Semele Jukesii, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Torres Straits, Australia; Jukes.

Most exquisitely wrinkled-ridged and crenulated beneath the lens.

Species 8. (Mus. Cuming.)

AMPHIDESMA CRENULATA. *Amph. testâ suborbiculari, convexâ, subrudè incrassatâ, subæquilaterali, latere postico flexuoso; sordidè albâ, undique concentricè densè minutè fimbriato-lamellatâ, interstitiis liris radiantibus exilissimè cancellatis.*

THE CRENULATED AMPHIDESMA. Shell somewhat orbicular, convex, somewhat rudely thickened, nearly equilateral, posterior side flexuous; dull white, concentrically densely minutely fimbriately lamellated throughout, interstices very finely cancellated with radiating ridges.

SOWERBY, Species Conch. (inedit.) *Amphidesma*, f. 13.

Hab. Indian Ocean.

A rudely thickened convex shell, very beautifully minutely frilled and cancellated throughout, like honey-comb.

Species 9. (Mus. Cuming.)

AMPHIDESMA RUPIUM. *Amph. testâ subovali vel suborbiculari, subirregulari, radiatim striatâ, liris interruptis concentricè rugosâ; umbone lævigato; intus albâ; dentibus lateralibus subapproximatis, brevibus, crassis, margineque dorsali posticâ purpureis.*

THE ROCK AMPHIDESMA. Shell suboval or suborbicular, rather irregular, radiately striated, concentrically wrinkled with interrupted ridges; umbo smooth; white within; lateral teeth rather approximated, short, thick, and, with the posterior dorsal margin, purple.

SOWERBY, Pro. Zool. Soc. 1832, part 2. p. 199.

Hab. Lord Hood's and Galapagos Islands, Pacific Ocean (in the crevices of rocks and coral reefs); Cuming.

A *Petricola*-like species, of irregular growth, varying, doubtless, more or less, according to the nature of its habitat.

Species 10. (Mus. Cuming.)

AMPHIDESMA SOLIDA. *Amph. testâ ovato-orbiculari, crassâ, spadiceo-albâ, intus versus cardinem purpurascente, liris undatis rugæformibus undique concentricè sculptâ.*

THE SOLID AMPHIDESMA. Shell ovately orbicular, thick, fawn-white, purple in the interior towards the hinge, concentrically sculptured throughout with waved wrinkle-like ridges.

GRAY, Spicilegium Zoologicum, part 1. p. 6. pl. 6. f. 6.

Hab. Valparaiso; Cuming.

A fine species of solid growth, sculptured externally with concentric wavy wrinkle-like ridges.

Species 11. (Mus. Cuming.)

AMPHIDESMA SUBTRUNCATA. *Amph. testâ subquadrato-orbiculari, tenuiculâ, subæquilaterali, latere postico truncato, flexuoso; lutescente-albâ, nitente, lineis roseis subinterruptis promiscuè radiatâ, plicis tenuibus obtusis flexuosis concentricè sculptâ.*

THE SUB-TRUNCATED AMPHIDESMA. Shell somewhat squarely orbicular, rather thin, nearly equilateral, posterior side truncated, flexuous; yellowish-white, shining, promiscuously rayed with rose lines, and sculptured concentrically with thin obtuse flexuous folds.

SOWERBY, Species Conch. (inedit.) *Amphidesma*, f. 19 and 20.

Hab. Island of Nevis, West Indies (in sandy mud at the depth of six fathoms); Captain Powers.

A delicately rose-rayed *Tellina*-like species.

Species 12. (Mus. Cuming.)

Amphidesma radiata. *Amph. testâ subquadrato-orbiculari, posticè obliquè flexuosâ, crassâ, striis subtilibus densè radiatâ, plicis tenuibus planulatis irregularibus concentricè sculptâ; lutescente-albâ, aurantio-carneo pallidè tinctâ et radiatâ.*

The rayed Amphidesma. Shell subquadrately orbicular, posteriorly obliquely flexuous, thick, densely rayed with fine striæ, concentrically sculptured with thin flattened folds; yellowish-white, faintly tinged and rayed with orange-flesh.

Ruppell, MSS. in Mus. Frankfort.

Hab. Red Sea (in coral sand); Ruppell.

A thick obliquely flexuous orbicular shell, tinged and rayed with orange-flesh, the surface being rayed with minute striæ across thin flattened folds, which are covered in part with a peculiar deciduous epidermis.

Species 13. (Mus. Cuming.)

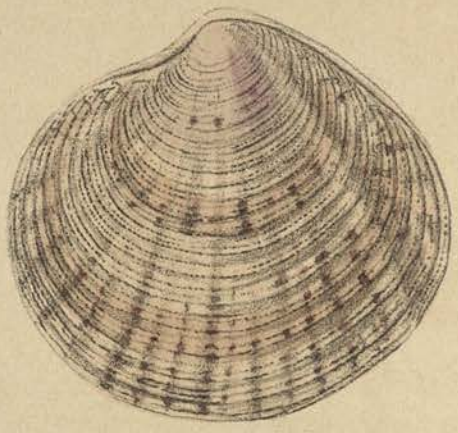
Amphidesma orbiculata. *Amph. testâ orbiculari, posticè flexuosâ, latere antico paululum breviore, umbonibus subprominulis; sordidè albâ, prope marginem fusco tinctâ, radiatim densè flexuoso-striatâ, concentricè lineis tenuibus elevatis flexuosis subinterruptis sculptâ.*

The orbicular Amphidesma. Shell orbicular, posteriorly flexuous, anterior side a little the shorter, umboes rather prominent; dull white, tinged with brown near the margin, radiately densely flexuously striated, concentrically sculptured with rather interrupted thin flexuous raised lines.

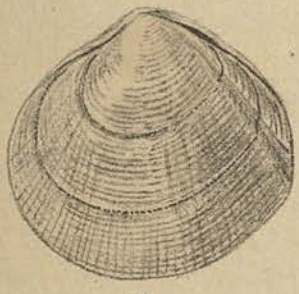
Say, Journ. Acad. Nat. Sci. Phil. vol. 2. p. 307.

Hab. United States.

A rounded *Venus*-like species of denser cancellated sculpture than the preceding.



14.



15.

16.

17.

18.

19.

20.

Sowerby, del. et lith.

F. Reeve, imp.

AMPHIDESMA.

PLATE III.

Species 14. (Mus. Cuming.)

AMPHIDESMA DUPLICATA. *Amph. testâ ovali-orbiculari, compressâ, subæquilaterali, posticè flexuosâ; lutescente-albâ, luteo roseoque promiscuè punctatâ et pallidè radiatâ, concentricè subirregulariter densè duplicato-liratâ, liris interstitiisque striis radiantibus minutè scabrosis crenulatis.*

THE DOUBLE-RIDGED AMPHIDESMA. Shell oval-orbicular, compressed, nearly equilateral, posteriorly flexuous; yellowish-white, promiscuously dotted and faintly rayed with yellow and rose, concentrically somewhat irregularly densely double-ridged, ridges and interstices crenulated with minute scabrous radiating striæ.

SOWERBY, Species Conch. (inedit.) *Amphidesma*, f. 14 and 15.

Hab. Antigua.

An exquisitely sculptured species in which the concentric ridges are arranged in pairs, delicately and beautifully painted.

Species 15. (Mus. Cuming.)

AMPHIDESMA DECORA. *Amph. testâ orbiculari, subæquilaterali, compressiusculâ, liris concentricis et radiantibus undique eximiè reticulatâ, latere antico sublongiore, rotundato, postico subtruncato, valdè flexuoso; intus albâ.*

THE GRACEFUL AMPHIDESMA. Shell orbicular, nearly equilateral, rather compressed, delicately reticulated throughout with concentric and radiating ridges, anterior side rather the longer, rounder, posterior slightly truncated, very flexuous; white within.

Semele decora, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

Closely reticulated over by small delicate concentric and radiating ridges.

Species 16. (Mus. Cuming.)

AMPHIDESMA LAMELLOSA. *Amph. testâ subquadrato-ovatâ, subplano-compressâ, lateribus subangulatis, postico flexuoso; marmoreo-albâ, concentricè lamellato-liratâ, liris elevatis, recurvis, externè crispato-crenulatis, ad latera productis et confertis.*

THE LAMELLOSE AMPHIDESMA. Shell somewhat squarely ovate, rather flatly compressed, sides somewhat angled, posterior flexuous; marble-white, concentrically lamellarly ridged, ridges raised, recurved, outwardly crisply crenulated, produced and crowded at the sides.

SOWERBY, Species Conch. Part 2 (inedit.) *Amphidesma* f. 9 and 19.

Hab. Australia. Java.

The lamellar ridges which characterize this species are curled over towards the umboes, showing the outer surface to be crisply crenulated.

Species 17. (Mus. Cuming.)

AMPHIDESMA ROSEA. *Amph. testâ suborbiculari, roseâ, concentricè costatâ, epidermide fuscâ lucidâ indutâ; latere postico subemarginato; costis confertis, acutis.*

THE ROSE AMPHIDESMA. Shell nearly orbicular, rose, concentrically ribbed, covered with a brown lucid epidermis; posterior slightly emarginated; ribs close-set, sharp.

SOWERBY, Pro. Zool. Soc. 1832, part 2. p. 199.

Hab. Tumbez, Peru; Cuming.

A fine characteristic species, described originally by Mr. Sowerby from a single valve, obtained by Mr. Cuming in the above-named locality.

Species 18. (Mus. Cuming.)

AMPHIDESMA CASTA. *Amph. testâ oblongo-ovali, compressiusculâ, inæquilaterali, latere antico longiore, rotundato, postico subangulato-rotundato, flexuoso; albâ, umbonibus interdum flavescentibus; radiatim striatâ, concentricè densè lamellosâ, lamellis tenuibus, pulcherrimè fimbriatis, ad latera prominentioribus.*

THE CHASTE AMPHIDESMA. Shell oblong-oval, rather compressed, inequilateral, anterior side the longer, rounded, posterior rather angularly rounded, flexuous; white, umboes sometimes yellowish; radiately striated, concentrically densely lamellated, lamellæ thin, very beautifully frilled, more prominent at the sides.

Semele casta, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Moreton Bay, Australia; Strange.

Most elegantly and beautifully sculptured, the whole of the fine lamellæ being delicately frilled at the edge.

Species 19. (Mus. Cuming.)

Amphidesma Californica. *Amph. testâ oblongo-ovali, inæquilaterali, fuscescente-albâ, sordidè fusco pallidè radiatâ, concentricè sulcatâ, liris intermediis obtusè elevatis subcorrugatis, sulcis creberrimè radiatim striatis; latere antico oblongo-rotundato, postico subtruncato, valdè flexuoso; intus albidâ aut lutescente.*

The Californian Amphidesma. Shell oblong-oval, inequilateral, brownish-white, faintly rayed with dull brown, concentrically grooved, the intermediate ridges being obtusely raised and somewhat wrinkled, grooves very closely radiately striated; anterior side oblong-rounded, posterior slightly truncated, very flexuous; whitish or yellowish within.

Semele Californica, A. Adams, Zool. Pro. Soc. July, 1853.

Hab. Gulf of California.

An obtusely wrinkle-ridged species, densely rayed from the umboes with minute striæ.

Species 20. (Mus. Cuming.)

Amphidesma proxima. *Amph. testâ suborbiculari, posticè paululum flexuosâ et subtruncatâ; albâ, epidermide tenui sordidâ plus minus deciduâ, concentricè irregulariter flexuoso-liratâ, striis minutis numerosis radiantibus.*

The allied Amphidesma. Shell nearly orbicular, a little flexuous and slightly truncated on the posterior side; white, with a thin more or less deciduous dirty epidermis, concentrically irregularly flexuously ridged, with numerous minute radiating striæ.

C. B. Adams, Cat. Shells of Panama, p. 292.

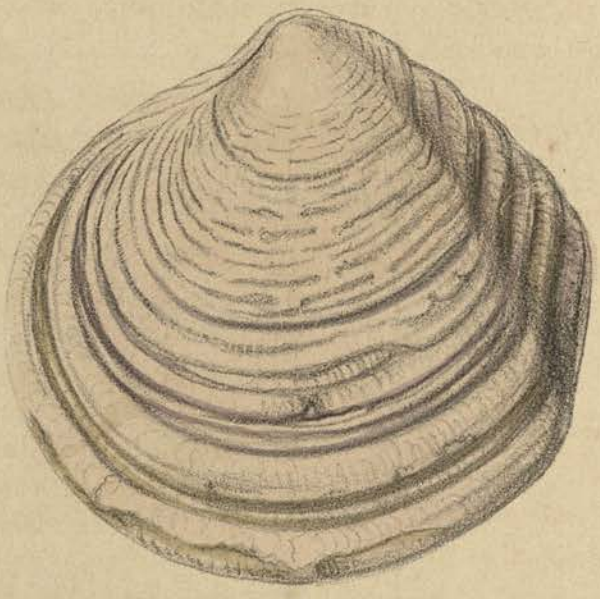
Hab. Panama.

A fine large species with somewhat of a *Lucina*-aspect.

21.

22.

23.



24.

25.

26.

27.

Sowerby, del. et lith.

F. Reeve, imp.

AMPHIDESMA.

PLATE IV.

Species 21. (Mus. Cuming.)

AMPHIDESMA GRUNERI. *Amph. testâ subobliquè ovatâ, crassâ, convexiusculâ, albidâ, roseo promiscuè maculatâ et radiatâ, latere antico vix longiore, postico rotundato, subflexuoso; concentricè plicatâ, plicis densè tenuilamellosis, lamellis quasi abrasis, interstitiis liris parvis concinnè radiatis.*

GRUNER'S AMPHIDESMA. Shell somewhat oblique, ovate, thick, rather convex, whitish, promiscuously blotched and rayed with rose, anterior side scarcely the longer, posterior rounded, subflexuous; concentrically plicated, plaits densely finely lamellated, the lamellæ as though abraded, interstices finely rayed with small ridges.

Semele Gruneri, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

A beautiful rose-painted species, plaited concentrically with ribs of closely packed lamellæ, the interstices between the ribs being rayed with fine ridges.

Species 22. (Mus. Cuming.)

AMPHIDESMA PALLIDA. *Amph. testâ ovali, pallidè purpurascente-fulvâ, umbonibus saturatioribus, tenuissimè concentricè striatâ, epidermide tenui subiridescente indutâ; latere postico subtruncato, flexuoso, antico rotundato.*

THE PALE AMPHIDESMA. Shell oval, pale purple-fulvous, umboes darker, very finely concentrically striated, covered with a thin subiridescent epidermis; posterior side subtruncated, flexuous, anterior rounded.

SOWERBY, Pro. Zool. Soc. 1832, p. 199.

Hab. Salango, West Columbia (dredged in sandy mud at a depth of seven fathoms); Cuming.

Extremely finely sculptured throughout with close-set concentric raised striæ.

Species 23. (Mus. Cuming.)

AMPHIDESMA DECUSSATA. *Amph. testâ subtrigono-orbiculari, tenuiculâ, latere postico subangulato et flexuoso; albidâ, prope umbones purpurascente tinctâ, intus purpureo vividè undato-punctatâ; radiatim minutè striatâ, lineis tenuibus elevatis concentricis versus marginem.*

THE DECUSSATED AMPHIDESMA. Shell somewhat triangularly orbicular, rather thin, posterior side slightly angled and flexuous; whitish, tinged with purple towards the umboes, brightly wave-dotted with purple in the interior; radiately minutely striated, with thin raised concentric lines towards the margin.

Tellina decussata, Wood General Conch. p. 190. pl. 43. f. 2 and 3.

Amphidesma Jayanum, C. B. Adams.

Hab. West Indies; C. B. Adams.

A delicately formed species, tinged externally with purple towards the umboes, from a sprinkling of rose-purple wave-dots in the interior showing through.

Species 24. (Mus. Cuming.)

AMPHIDESMA DECISA. *Amph. testâ subtrigono-orbiculari, compressâ, latere postico subangulato et conspicuè flexuoso, concentricè peculiariter rudè plicatâ, plicis tumidis, irregularibus, undiquè crispato-punctatis, quasi corrugatis; roseo-albidâ, plicarum interstitiis hic illic roseis.*

THE DECIDED AMPHIDESMA. Shell somewhat triangularly orbicular, compressed, posterior side rather angled and conspicuously flexuous, concentrically peculiarly rudely plicated, plaits swollen, irregular, and crisply dotted, as though wrinkled, throughout; pinkish-white, interstices between the folds here and there pink.

CONRAD, Journ. Acad. Nat. Sci. Philadelphia, vol. vii. pl. 19. f. 2.

Hab. San Diego, California.

This fine and very characteristic species is most curiously wrinkle-punctured throughout.

Species 25. (Mus. Cuming.)

AMPHIDESMA ZEBUENSIS. *Amph. testâ oblongo-ovali, inæquilaterali, compressiusculâ, latere antico sublongiore, rotundato, postico subtruncato, paululum flexuoso; albidâ, carneolo promiscuè pallidè radiatâ; concentricè lamellato-costatâ, costis subæqualibus, ad latera productis, interstitiis minutissimè striato-radiatâ, lineâ elevatâ concentricâ.*

THE ZEBU AMPHIDESMA. Shell oblong-oval, inequilateral, rather compressed, anterior side somewhat the longer, rounded, posterior subtruncated, a little flexuous; whitish, promiscuously raised with faint flesh-

tint; concentrically lamella-ribbed, ribs nearly equal, produced at the sides, interstices very minutely striarayed, with a concentric raised line.

Hanley, Recent Shells, Supp. pl. 12. f. 7.

Semele gratiosa, A. Adams.

Hab. Moluccas.

Of an obliquely oblong-oval form, densely ribbed with recurved lamellæ.

Species 26. (Mus. Cuming.)

Amphidesma punctata. *Amph. testâ ovali, crassiusculâ, albicante, sparsim roseo fulvoque maculatâ; posticè subtruncatâ, plicâ flexuosâ posticali distinctâ; disco externo concentricè impresso-punctato, marginibus, inferiori costis nonnullis concentricis latis, dorsalibus utrinque roseo maculatis.*

The dotted Amphidesma. Shell oval, rather thick, whitish, sparingly dotted with rose and fulvous; posteriorly somewhat truncated, with a distinct posterior flexuous fold; outer disk concentrically impressly dotted, dorsal margins, the lower of which has some broad concentric ridges, spotted at both ends with rose.

Sowerby, Pro. Zool. Soc. 1832, p. 200.

Hab. Gallapagos Islands.

A very characteristic, rudely sculptured species, of oblong-oval compressed form, sparingly dotted with rose.

Species 27. (Mus. Cuming.)

Amphidesma formosa. *Amph. testâ ovali, albicante, roseo radiatâ et purpureo maculatâ, concentricè costatâ, costis confertis, anticè posticèque rugulosis; umbonibus intus lutescentibus.*

The beautiful Amphidesma. Shell oval, whitish, rayed with rose, and blotched with purple, concentrically ribbed, ribs close-set, anteriorly and posteriorly rugulose; umboes yellowish interiorly.

Sowerby, Pro. Zool. Soc. 1832, p. 199.

Hab. St. Elena, West Columbia (dredged in seven fathoms water); Cuming.

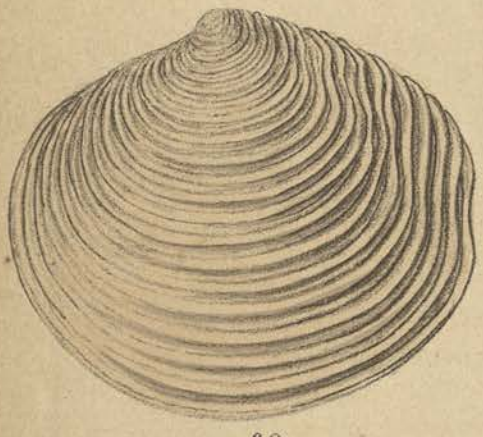
A fine, large, richly coloured species, of *Tellina*-like aspect.

28.

29.

30.

31.



32.

33.

34.

Sowerby, del. et lith.

F. Reeve, imp.

AMPHIDESMA.

PLATE V.

Species 28. (Mus. Cuming.)

AMPHIDESMA SINENSIS. *Amph. testâ suboblongo-orbiculari, æquilaterali, compressiusculâ, albidâ, epidermide subfuscâ partim indutâ, liris numerosis tenuibus undique densè cancellatâ; latere antico rotundato, postico truncato, subflexuoso; umbonibus rosaceis, lævibus.*

THE CHINESE AMPHIDESMA. Shell rather oblong-orbicular, equilateral, rather compressed, whitish, partially covered with a light brownish epidermis, densely cancellated throughout with numerous fine ridges; anterior side rounded, posterior truncated, rather flexuous; umboes pink, smooth.

Semele Sinensis, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. China.

The concentric ridges have a thread-like appearance, while those which radiate from the vicinity of the umboes are obtuse and somewhat irregular.

Species 29. (Mus. Cuming.)

AMPHIDESMA RETICULATA. *Amph. testâ orbiculari, æquilaterali, compressiusculâ, lutescente-albâ, liris tenuibus filiformibus concentricè sculptâ, interstitiis sub lente minutè radiatim striatis; latere antico rotundato, postico truncato, subflexuoso; intus lutescente.*

THE RETICULATED AMPHIDESMA. Shell orbicular, equilateral, rather compressed, yellowish-white, sculptured with fine thread-like concentric ridges, the interstices between which are, beneath the lens, finely radiately striated; anterior side rounded, posterior truncated and slightly flexuous; interior yellow.

SOWERBY, Species Conch. (inedit.) *Amphidesma*, f. 11 and 12.

Hab. Brazils and West Indies (in sandy mud).

Sculptured with concentric thread-like ridges, comparatively rather distant, with the interstices very minutely radiately striated.

Species 30. (Mus. Cuming.)

AMPHIDESMA CORDIFORMIS. *Amph. testâ orbiculari, crassiusculâ, æquilaterali, compresso-convexâ, albidâ, liris tenuibus undique densè minutè decussatâ, lateribus subtrigonis, postico truncato, leviter flexuoso; umbonibus rosaceis, lævibus, areis utrinque umbones lineis roseis subdistantibus ornatis.*

THE HEART-SHAPED AMPHIDESMA. Shell orbicular, rather thick, equilateral, compressly convex, whitish, densely minutely decussated throughout with fine ridges, sides somewhat triangular, posterior side truncated, slightly flexuous; umboes rose, smooth, areas on each side the umboes ornamented with rather distant rose lines.

SOWERBY, Species Conch. (inedit.) *Amphidesma*, f. 7.

Hab. Indian Ocean; Humphreys.

An extremely rare species, closely allied to *A. Sinensis*, but of a more orbicular form, rather thicker, and more finely sculptured.

Species 31. (Mus. Cuming.)

AMPHIDESMA ELLIPTICA. *Amph. testâ elliptico-ovatâ, albâ, subobliquâ, lævi, epidermide sordidâ; latere antico longiore, rotundato, postico obliquè subtruncato, superficie concentricè lirato-striatâ, striis subtilissimis impressis radiatâ.*

THE ELLIPTIC AMPHIDESMA. Shell elliptic-oval, white, rather oblique, smooth, with a dirty epidermis; anterior side the longer, rounded, posterior obliquely subtruncated, surface concentrically ridge-striated, radiately marked with very fine impressed striæ.

SOWERBY, Pro. Zool. Soc. 1832, p. 200.

Hab. Monte Christe, West Columbia (in sandy mud at nine fathoms); Cuming.

A fine species, of a peculiar elliptic-oval form, simply stria-sculptured.

Species 32. (Mus. Cuming.)

AMPHIDESMA AMABILIS. *Amph. testâ oblongo-ovatâ, compressâ, albidâ, concentricè lamellosâ, lamellis elevatis, plicatis, margine crenulatis, ad latera productis, interstitiis striolatis, lirâ filiformi concentricâ sculptis; latere antico vix longiore, postico flexuoso.*

THE LOVELY AMPHIDESMA. Shell oblong-ovate, compressed, whitish, concentrically lamellose, lamellæ raised, plicated, crenulated along the edge, produced at the sides, interstices finely striated, and sculptured with a concentric filiform ridge; anterior side rather the longer, posterior flexuous.

Semele amabilis, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Port Curtis, Australia.

Elegantly sculptured throughout with thin raised lamellæ.

Species 33. (Mus. Cuming.)

Amphidesma scabra. *Amph. testâ orbiculari, convexâ, subæquilaterali, latere antico rotundato, postico subtruncato, leviter flexuoso; lutescente-albâ, lineis pallidè rufo-aurantiis obscurè radiatâ, cardine purpureo-tincto; superficie densè tenuilamellatâ, lamellis margine crenulatis, interstitiis concentricè striatis, radiatim crispato-corrugatis.*

The rough Amphidesma. Shell orbicular, convex, nearly equilateral, anterior side rounded, posterior subtruncated and slightly flexuous; yellowish-white, obscurely rayed with faint reddish-orange lines, hinge purple-stained; surface densely finely lamellated, lamellæ crenulated at the edge, interstices concentrically striated, radiatély crisply wrinkled.

Hanley, Recent Shells, Supp. pl. 12.

Hab. ——?

A delicately sculptured species of yellowish-white, faintly characterized by a few radiating reddish-orange lines.

Species 34. (Mus. Cuming.)

Amphidesma Jovis. *Amph. testâ subelliptico-ovali, ventricosiusculâ, latere antico sublongiore, postico truncato, paululum flexuoso; roseo-spadiceâ, umbonibus roseis; concentricè lamellatâ, lamellis parvis, tenuibus, confertis.*

Jupiter's Amphidesma. Shell somewhat elliptically oval, rather ventricose, anterior side rather the longer, posterior truncated, a little flexuous; rose-fawn, umboes rose; concentrically lamellated, lamellæ small, thin, close-set.

Semele Jovis, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

A fine large rose-tinted species, sculptured with close-set small lamellæ of a light fawn colour.

35.a

35. b

36.

37.

38.

39.

40.

41.

42.

43.

Sowerby. del et lith.

F.Reeve, imp.

AMPHIDESMA.

PLATE VI.

Species 35. (Mus. Cuming.)

AMPHIDESMA MODESTA. *Amph. testâ subtrigono-orbiculari, compresso-convexâ, æquilaterali, concentricè densè plicatâ, plicis crassiusculis, irregularibus, hic illic flexuosis, interstitiis radiatim minutissimè elevato-striatis; albidâ, lineis interruptis roseis obscurè radiatâ.*

THE MODEST AMPHIDESMA. Shell somewhat triangularly orbicular, compressly convex, equilateral, concentrically densely plicated, plaits rather thick, irregular, here and there flexuous, interstices radiately very minutely elevately striated; whitish, obscurely rayed with interrupted rose lines.

Semele modesta, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Cape Palmas, West Africa; Redfield.

A bluntly plaited species of a peculiar *Astarte*-like form.

Species 36. (Mus. Cuming.)

Amphidesma icterica. This species is figured in the genus *Lucina* at Pl. X. fig. 60, with a remark that it partakes materially of the characters of *Amphidesma*.

Species 37. (Mus. Cuming.)

AMPHIDESMA PURPURASCENS. *Amph. testâ ovali, latere antico rotundato, postico angulato, leviter flexuoso; concentricè densè acutè liratâ; fulvescente, umbonibus purpurascentibus, albiradiatis, intus purpurascente.*

THE PURPLE AMPHIDESMA. Shell oval, anterior side rounded, posterior angled, slightly flexuous; concentrically densely sharply ridged; light fulvous, umboes purple, white-rayed, purple in the interior.

SOWERBY, Pro. Zool. Soc. 1832, p. 199.

Hab. St. Elena, West Columbia; Cuming.

The odd valve of this elegant species, here figured, was picked up by Mr. Cuming on the sands at the above-named locality.

Species 38. (Mus. Cuming.)

AMPHIDESMA VESTALIS. *Amph. testâ orbiculari, latere postico contorto-flexuoso; albâ, undique concentricè densè subtiliter striato-lamellatâ, lamellis ad marginem crenulatis, interstitiis nitidè radiatim cancellatis.*

THE VESTAL AMPHIDESMA. Shell orbicular, posterior side twistedly reflected; white, concentrically densely finely striately lamellated, lamellæ crenulated along the edge, interstices neatly radiately cancellated.

Semele vestalis, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. China Seas.

The lamellated and cancellated sculpture of this species is the same as that which is so characteristic of the genus, on an unusually small pattern.

Species 39. (Mus. Cuming.)

AMPHIDESMA LENTICULARIS. *Amph. testâ orbiculari, tenui, subventricosâ, latere postico leviter flexuoso; albâ, striis filiformibus subflexuosis concentricè sculptâ, striis impressis minutissimis radiantibus decussatâ.*

THE LENS-SHAPED AMPHIDESMA. Shell orbicular, thin, subventricose, posterior side slightly flexuous; white, sculptured concentrically with thread-like subflexuous striæ, decussated with very minute impressed striæ.

SOWERBY, Pro. Zool. Soc. 1832, p. 200.

Hab. St. Elena, West Columbia (in sandy mud at six fathoms); Cuming.

A thin subventricose shell, with the sculpture rather faintly developed.

Species 40. (Mus. Cuming.)

AMPHIDESMA SPONSA. *Amph. testâ orbiculari, ventricosiusculâ, solidâ, æquilaterali, latere antico rotundato, postico subangulato, flexuoso; albâ, concentricè densè lamellatâ, lamellis tenuibus, acutis, margine subtilissimè crenulatis, ad latera productis, interstitiis hic illic concentricè tenuiliratis.*

THE BRIDE AMPHIDESMA. Shell orbicular, rather ventricose, solid, equilateral, anterior side rounded, posterior subangled, flexuous; white, concentrically densely lamellated, lamellæ thin, sharp, very finely crenulated along the edge, produced at the sides, interstices here and there concentrically finely ridged.

Semele sponsa, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Island of Zebu, Philippines; Cuming.

A fine solid ventricose shell of a pure white, elegantly mellated throughout.

Species 41. (Mus. Cuming.)

AMPHIDESMA AUSTRALIS. *Amph. testâ orbiculari, convexâ, latere postico flexuoso; albâ, plus minus roseo promiscuè maculatâ et radiatâ, concentricè crassiplicatâ, plicis subflexuosis et lineari-sulcatis.*

THE SOUTHERN AMPHIDESMA. Shell orbicular, convex, posterior side flexuous; white, more or less promiscuously spotted and rayed with rose, concentrically thickly plicated, plaits subflexuous and linearly grooved.

SOWERBY, Pro. Zool. Soc. 1832, p. 200.

Hab. New Holland; Sowerby. Lord Hood's Island, Pacific Ocean (in the crevices of coral rocks); Cuming.

Partaking of the character of *A. Gruneri*, but of a more rounded and convex form.

Species 42. (Mus. Cuming.)

AMPHIDESMA LUTEOLA. *Amph. testâ orbiculari, ventricosâ, subæquilaterali, latere postico leviter flexuoso; lutescente-albâ, circa umbones lævi, deinde liris subtilibus concentricè sculptâ, interstitiis radiatim elevato-lineatis; intus luteâ.*

THE YELLOWISH AMPHIDESMA. Shell orbicular, ventricose, nearly equilateral, posterior side slightly flexuous; yellowish-white, smooth around the umboes, then concentrically sculptured with very fine ridges, interstices radiately elevately lineated; interior yellow.

Semele luteola, A. Adams, Pro. Zool. Soc. 1853.

Hab. —— ?

A rounded faintly sculptured species of a yellowish hue.

Species 43. (Mus. Cuming.)

AMPHIDESMA MARTINII. *Amph. testâ subtrigono-ovatâ, crassâ, convexiusculâ, latere antico longiore, postico subtruncato et valdè flexuoso; albidâ, carneo radiatâ, concentricè plicatâ, plicis crassis, irregularibus, sæpè dichotomis aut confluentibus, posticè validioribus et flexuosis; intus lutescente.*

MARTIN'S AMPHIDESMA. Shell somewhat triangularly ovate, thick, rather convex, anterior side the longer, posterior somewhat truncated and very flexuous; whitish, rayed with flesh, concentrically plaited, plaits thicks, irregular, often dichotomous or confluent, posteriorly stronger and flexuous; yellowish within.

Semele Martinii, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Rio.

An interesting species, distinguished by its dichotomous and solid growth, dredged in deep water off Rio by M. Adolphe Martin, a French captain, and diligent collector of shells.

44.

45.

46.

47.

48.

49.

50.

51.

52.

53.

Sowerby, del. et lith.

F. Reeve, imp.

AMPHIDESMA.

PLATE VII.

Species 44. (Mus. Cuming.)

AMPHIDESMA CANCELLATA. *Amph. testâ subobliquè ovatâ, latere antico multo longiore, carneâ, aurantio obscurè radiatâ; superficie undique densè obtusè reticulato-cancellatâ.*

THE CANCELLATED AMPHIDESMA. Shell rather obliquely ovate, anterior side much the longer, flesh-colour; obscurely rayed with orange; surface densely obtusely reticulately cancellated throughout.

SOWERBY, Species Conch. (inedit.) *Amphidesma*, f. 8.

Hab. ——?

An odd valve of this little bluntly cancellated species is all that is at present known.

Species 45. (Mus. Cuming).

AMPHIDESMA LÆTA. *Amph. testâ ovatâ, tenuiculâ, nitente, liris tenuibus subflexuosis concentricè sculptâ, striis radiantibus minutis radiatâ, latere antico multo longiore, lateribus ambobus rotundatis; albidâ, purpurascente-roseo nitidè biradiatâ et punctatâ.*

THE CHEERFUL AMPHIDESMA. Shell ovate, rather thin, shining, sculptured concentrically with thin subflexuous ridges, and rayed with minute decussating striæ, anterior side much the longer, both sides rounded; whitish, neatly two-rayed and dotted with purple-rose.

Semele læta, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

An oval shell, rounded at the ends, delicately rose-painted upon a shining white ground.

Species 46. (Mus. Cuming).

AMPHIDESMA STRIATA. *Amph. testâ subquadrato-cuneiformi, latere antico brevissimo, postico oblongo-producto, subflexuoso, tumido; concentricè lamellatâ, lamellis subdistantibus, interstitiis concentricè striatis; subpellucido-albâ.*

THE STRIATED AMPHIDESMA. Shell somewhat squarely wedge-shaped, anterior side very short, posterior oblong-produced, subflexuous, swollen; concentrically lamellated, lamellæ rather distant, interstices concentrically striated; subtransparent white.

RUPPELL, MSS. (Mus. Frankfort.)

Hab. Red Sea.

A delicate white *Petricola*-like species, differing from most species of the genus in having the posterior side of the shell longer than the anterior.

Species 47. (Mus. Cuming.)

AMPHIDESMA JUCUNDA. *Amph. testâ ovatâ, lateribus subæqualibus, rotundatis, postico vix flexuoso; compresso-convexâ, tenui, concentricè pulcherrimè lamellatis, lamellis breviter crispatis, interstitiis nitide radiatim densè liratis; pellucido-albâ, intus sanguineo maculatâ.*

THE WELCOME AMPHIDESMA. Shell ovate, with the sides nearly equal and rounded, posterior side a little flexuous; compressly convex, thin, concentrically very beautifully lamellated, lamellæ shortly curled, interstices neatly radiately densely ridged; transparent white, spotted within with blood-colour.

Semele jucunda, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Singapore.

A thin, elaborately sculptured, white species, faintly blood-smeared in the interior.

Species 48. (Mus. Cuming.)

AMPHIDESMA PULCHELLA. *Amph. testâ orbiculari, convexâ, subæquilaterali, latere postico paululum flexuoso; albidâ, epidermide tenui versus marginem indutâ, umbonibus purpurascente-roseis, albiradiatis, intus purpurascente-tinctâ; lævi, versus marginem concentricè tenuiliratâ, striis minutissimis impressis radiatâ.*

THE PRETTY AMPHIDESMA. Shell orbicular, convex, nearly equilateral, posterior side a little flexuous; whitish, covered towards the margin with a thin epidermis; umboes purple-rose, white-rayed, interior purple-tinted; smooth, concentrically thin-ridged towards the margin, and rayed with very minute impressed striæ.

Semele pulchella, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

A species of simple character, purple-stained, and delicately white-rayed at the umboes, and tinged with purple interiorly.

Species 49. (Mus. Cuming.)

AMPHIDESMA VIRGINEA. *Amph. testâ oblongo-ovatâ, tenui, subpellucido-albâ, plicis filiformibus subdistantibus concentricè sculptâ, interstitiis radiatim creberrimè minutè striatis; lateribus angulato-rotundatis, postico vix flexuoso.*

THE VIRGIN AMPHIDESMA. Shell oblong-ovate, thin, subtransparent-white, sculptured concentrically with rather distant thread-like plaits, interstices radiately very closely minutely striated; sides angularly rounded, posterior side scarcely flexuous.

Semele virginea, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. Basay, Isle of Samar, Philippines; Cuming.

A semitransparent white shell, sculptured with rather distant thread-like plaits.

Species 50. (Mus. Cuming.)

AMPHIDESMA LÆVIS. *Amph. testâ subelliptico-ovatâ, latere antico multo longiore, postico rotundato, producto, subflexuoso, sulco ab umbone ad marginem decurrente; albâ, lævigatâ, sub lente minutè decussatim striatâ, epidermide tenuissimâ nitente versus marginem indutâ.*

THE SMOOTH AMPHIDESMA. Shell somewhat elliptically ovate, anterior side much the longer, posterior rounded, produced, rather flexuous, with a groove running down from the umbo to the margin; white, smooth, minutely decussately striated beneath the lens, covered towards the margin with a thin shining epidermis.

SOWERBY, Pro. Zool. Soc. 1832, p. 199.

Hab. Xipixapi, West Columbia (in sandy mud, at the depth of ten fathoms); Cuming.

A delicate smooth white species, of a peculiar sub-elliptic ovate form.

Species 51. (Mus. Cuming.)

AMPHIDESMA COMPTA. *Amph. testâ orbiculari-ovatâ, compressâ, æquilaterali, lateribus rotundatis, postico vix flexuoso; albidâ, luteo-fuscescente obscurè radiatâ, concentricè lirato-striatâ, striis minutis impressis densè radiatâ.*

THE NEAT AMPHIDESMA. Shell orbicularly ovate, compressed, equilateral, sides rounded, posterior scarcely flexuous; whitish, obscurely rayed with yellowish light brown, concentrically ridge-striated, densely rayed with minute impressed striæ.

Semele compta, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

Comparatively smooth in appearance, but elaborately decussately sculptured beneath the lens.

Species 52. (Mus. Cuming.)

AMPHIDESMA AMŒNA. *Amph. testâ subtrigono-orbiculari, ventricosiusculâ, tenellâ, subæquilaterali, latere postico subproducto, paululum flexuoso; albidâ, umbonibus purpurascentibus; concentricè flexuoso-striatâ, striis minutis radiantibus.*

THE DELICATE AMPHIDESMA. Shell somewhat triangularly orbicular, rather ventricose, thin, nearly equilateral, posterior side rather produced, a little flexuous; whitish, umboes purple-tinged; concentrically flexuously striated, with minute radiating striæ.

Semele amœna, A. Adams, Pro. Zool. Soc. July, 1853.

Hab. ——?

Sculptured with fine concentric ridge-like striæ, similar to the preceding species.

Species 53. (Mus. Cuming.)

AMPHIDESMA SIMPLEX. *Amph. testâ oblongo-ovatâ, latere postico vix breviore, concentricè densè flexuoso-striatâ, striis minutissimis radiantibus decussatâ; rosaceo-albâ, umbonibus roseis.*

THE SIMPLE AMPHIDESMA. Shell oblong-oval, posterior side scarcely shorter; concentrically densely flexuously striated, decussated with very minute impressed striæ; pinkish-white, umboes pink.

ADAMS and REEVE, Zool. Voy. Samarang, Moll. p. 81. pl. 24. f. 11.

Hab. China Sea.

A nearly equilateral *Tellina*-like species, tinged with pink, especially in the vicinity of the umboes.

AMPHIDESMA.

	Plate.	Species.
amabilis (*Semele*), A. Adams ..	V.	32
amœna (*Semele*), A. Adams....	VII.	52
australis, *Sowerby*	VI.	41
Californica (*Semele*), A. Adams..	III.	19
cancellata, *Sowerby*	VII.	44
carnicolor, *Hanley*	I.	6
casta (*Semele*), A. Adams.....	III.	18
compta (*Semele*), A. Adams....	VII.	51
cordiformis (*Tellina*), Chemnitz..	V.	30
corrugata, *Sowerby*	I.	4
crenulata, *Sowerby*.....	II.	8
decisa, *Conrad*.....	IV.	24
decora (*Semele*), A. Adams	III.	15
decussata (*Tellina*), Wood	IV.	23
duplicata, *Sowerby*	III.	14
elliptica, *Sowerby*.....	V.	31
exarata, *A. Ad.* and *Reeve*	I.	1
formosa, *Sowerby*.....	IV.	27
Grüneri (*Semele*), A. Adams ..	IV.	21
icterica, *Reeve*	VI.	36
Jayanum, C. B. Adams	IV.	23
Jovis (*Semele*), A. Adams	V.	34
jucunda (*Semele*), A. Adams ..	VII.	47
Jukesii (*Semele*), A. Adams	II.	7
læta (*Semele*), A. Adams.....	VII.	45
lævis, *Sowerby*.....	VII.	50
lamellosa, *Sowerby*	III.	16
lenticularis, *Sowerby*.....	VI.	39
luteola (*Semele*), A. Adams	VI.	42
Martinii (*Semele*), A. Adams ..	VI.	43
modesta (*Semele*), A. Adams ..	VI.	35
obliqua (*Tellina*), Wood	I.	5
orbiculata, *Say*.....	II.	13
pallida, *Sowerby*	IV.	22
proxima, *C. B. Adams*.....	III.	20
pulchella (*Semele*), A. Adams ..	VII.	48
pulchra, *Sowerby*	I.	2
punctata, *Sowerby*	IV.	26
purpurascens, *Sowerby*.....	VI.	37
radiata, *Ruppell*	II.	12
reticulata, *Sowerby*	V.	29
rosea, *Sowerby*	III.	17
rupium, *Sowerby*	II.	9
scabra, *Hanley*	V.	33
simplex, *A. Ad.* and *Reeve*	VII.	53
Sinensis (*Semele*), A. Adams ..	V.	28
solida, *Gray*.....	II.	10
sponsa (*Semele*), A. Adams....	VI.	40
striata, *Ruppell*	VII.	46
subtruncata, *Sowerby*	II.	11
variegatum, Lamarck	I.	5
venusta (*Semele*), A. Adams....	I.	3
vestalis (*Semele*), A. Adams....	VI.	38
virginea (*Semele*), A. Adams....	VII.	49
Zebuensis, *Hanley*	IV.	25

MONOGRAPH

OF THE GENUS

MESODESMA.

"Huge Ocean shows within his yellow strand
A habitation marvellously planned
For life to occupy."—*Southey.*

1

2

3

4

5

6

7

Sowerby del. et lith.

Vincent Brooks Imp

MESODESMA.

PLATE I.

Genus MESODESMA, *Deshayes*.

Testa trigono-ovata vel transversa, interdum trigono-lanceolata, plus minus compressa, æquivalvis, inæquilateralis, plerumque alba, parum colorata, parum exsculpta. Cardo dentibus lateralibus duobus, crassis, in utrâque valvâ, cum foveolâ profundâ cochleariformi interjacente, ligamento inserto. Impressiones musculares inæquales, anteriori majore, elongatâ; impressio pallii sinu posteriori.

Shell triangularly ovate or transverse, sometimes triangularly lanceolate, more or less compressed, equivalve, inequilateral, generally white, little coloured, little sculptured. Hinge with two thick lateral teeth in each valve, with a deep spoon-shaped pit lying between, with the ligament inserted. Muscular impressions unequal, anterior the larger, elongated; impression of the mantle with a posterior sinus.

The genus *Mesodesma* was instituted by M. Deshayes for the reception of certain species of *Mactracea* having distinct peculiarities of their own, that had been assigned without consideration to different allied genera. They include *Mactra donacia*, *Crassatella polita*, *Crassatella cuneata*, *Crassatella striata*, *Crassatella erycinæa*, *Amphidesma donacilla*, and *Amphidesma glabrella* of Lamarck, *Mya Novæ-Zelandiæ* of Chemnitz, and *Erycina complanata* of Sowerby. They are of a colourless heavy texture, and are mostly characterized by a triangular wedge form, though some are transverse and suborbicular. The hinge has not the thin triangle tooth of *Mactra*, and the ligament, unlike that of *Crassatella*, is situated in a spoon-shaped cavity alongside the cardinal teeth. The muscular impressions are unequal, the anterior being elongated, and the impression of the mantle is deeply sinuated on the posterior side.

To the ten species described by M. Deshayes in his edition of the 'Anim. sans vertèbres,' we have to add twenty-one species, described chiefly by him about a twelvemonth since, in the collection of Mr. Cuming. They are intended for publication in the 'Proceedings of the Zoological Society' and in the 'Catalogue of Mollusca in the British Museum;' but as in neither of those works have the sheets containing *Mesodesma* yet issued from the press, I can only refer to M. Deshayes' manuscript tickets in the Cumingian collection, where the monograph was prepared.

The geographical distribution of the genus is very general. The most northern species are two which inhabit the shores of Massachusetts, and one small species in the Mediterranean. New Zealand, Australia, and Van Diemen's Land contribute more than half of the species of which the localities are known. One single species, inhabiting Chili, is all that we have from South or Central America.

The most abnormal form of *Mesodesma* is *M. triquetra*, Hanley, which is Mr. Gray's genus *Anapa*.

Species 1. (Mus. Cuming.)

MESODESMA CORNEA. *Mes. testâ trigono-oblongâ, crassâ, lævigatâ, lutescente-albâ, quasi pellucidâ, radiis duabus nigricantibus notatâ; lateribus rotundatis, antico brevissimo.*

THE HORNY MESODESMA. Shell triangularly oblong, thick, smooth, yellowish-white, as though transparent, marked with two blackish rays; sides rounded, anterior very short.

DESHAYES, Anim. sans vert. vol. vi. p. 133.
Amphidesma cornea, Lamarck.
Mactra cornea, Poli.
Amphidesma donacilla, Lamarck.
Donax plebeia, Montagu.
Erycina plebeia, Sowerby.

Hab. Mediterranean.

A rather solid though subtransparent-looking species, mostly rayed from the umboes with two grey-black bands.

Species 2. (Mus. Cuming.)

MESODESMA TRANSVERSA. *Mes. testâ trigono-oblongâ, compressiusculâ, subæquilaterali, anticè breviore, lævigatâ, sub lente subirregulariter concentricè striatâ; pellucido-albidâ, nitente, lutescente tinctâ.*

THE TRANSVERSE MESODESMA. Shell triangularly oblong, rather compressed, nearly equilateral, anteriorly shorter, smooth, beneath the lens somewhat irregularly concentrically striated; transparent white, shining, tinged with yellow.

DESHAYES, MS. (Mus. Cuming.)

Hab. —— ?

A subtransparent shining yellow-tinged species, of less solid texture than the preceding, obscurely concentrically striated.

Species 3. (Mus. Cuming.)

MESODESMA ANGUSTA. *Mes. testâ trigono-elongatâ, angustâ, compressiusculâ, valdè inæquilaterali, latere antico brevissimo, truncato; lævigatâ, nitente, epidermide olivaceo-luteâ indutâ.*

THE NARROW MESODESMA. Shell triangularly elongated, narrow, rather compressed, very inequilateral, anterior side very short, truncated; smooth, shining, covered with an olivaceous-yellow epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

A very inequilateral *Donax*-shaped species, of a smooth shining aspect, much compressed towards the posterior end.

Species 4. (Mus. Cuming.)

MESODESMA LATA. *Mes. testâ trigono-ovatâ, latâ, compressâ, concentricè densè irregulariter striatâ, striis ad latera sulcatioribus, latere postico rotundato, antico multo breviore, angulato-truncatâ, umbonibus subplanulatis; albidâ, epidermide corneâ, pallidè lutescente, indutâ.*

THE BROAD MESODESMA. Shell triangularly ovate, broad, compressed, concentrically densely irregularly striated, striæ more grooved at the sides, posterior side rounded, anterior much shorter, angularly truncated, umboes rather flattened; whitish, covered with a pale yellow-horny epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. New Zealand.

A fine broad subcompressed species, angularly truncated down the anterior side, rounded at the posterior.

Species 5. (Mus. Cuming.)

MESODESMA ELONGATA. *Mes. testâ elongato-oblongâ, solidiusculâ, valdè inæquilaterali, latere postico compresso-producto et rotundato, antico brevissimo, truncato; albidâ, epidermide lutescente-corneâ nitente indutâ.*

THE ELONGATED MESODEMA. Shell elongately oblong, rather solid, very inequilateral, posterior side compressly produced and rounded, anterior very short, truncated; whitish, covered with a shining yellowish-horny epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. Raines' Island, Torres Straits; Ince.

Of an unusually elongated form, very shortly truncated at the anterior end, compressly produced at the posterior.

Species 6. (Mus. Cuming.)

MESODESMA NITIDA. *Mes. testâ subtrigono-elongatâ, valdè inæquilaterali, latere antico brevissimo, crasso, tumidiusculo, truncato, postico compresso-producto et rotundato; nitente-albâ, epidermide lutescente-corneâ versus marginem indutâ.*

THE SHINING MESODESMA. Shell somewhat triangularly elongated, very inequilateral, anterior side very short, thick, rather swollen, truncated, posterior compressly produced and rounded; shining-white, covered towards the margin with a yellowish-horny epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

Closely allied to the preceding, from which it differs in being thicker and more swollen at the posterior end.

Species 7. (Mus. Cuming.)

MESODESMA OVALIS. *Mes. testâ oblongo-ovali, tenuiculâ, versus marginem compressâ, subæquilaterali, latere postico vix angustiore; nitente-albâ, subobscurè striatâ, epidermide nigricante partim indutâ.*

THE OVAL MESODESMA. Shell oblong-oval, rather thin, compressed towards the margin, nearly equilateral, posterior side a little the narrower; shining white, rather obscurely striated, partially covered with a blackish epidermis.

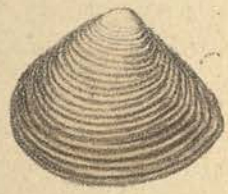
DESHAYES, MS. (Mus. Cuming.)

Hab. New Zealand; Hart.

Of a distinct typical form from the preceding species, rather thin and nearly equilateral, partially covered with a thin black epidermis.

8

9



10

11

12

13

14

Sowerby del. et lith.

Vincent Brooks Imp.

MESODESMA.

PLATE II.

Species 8. (Mus. Cuming.)

MESODESMA ARCTATA. *Mes. testâ subtrigono-ovatâ, obliquè curvatâ, convexo-compressâ, valdè inæquilaterali, latere antico brevissimo, subtruncato; opaco-albâ, vix striatâ, epidermide pallidè lutescente indutâ.*

THE STRAITENED MESODESMA. Shell somewhat triangularly ovate, obliquely curved, convexly compressed, very inequilateral, anterior side very short, subtruncated; opake-white, scarcely striated, covered with a pale yellowish epidermis.

GOULD, Invertebrata of Massachusetts, p. 57. f. 39.
Mactra arctata, Conrad.
Mactra deaurata, Conrad.
Mactra subtriangulata, Wood.

Hab. Cape Cod, Massachusetts, United States; Gould.

Of a peculiarly obliquely curved growth, very simply characterized in other respects.

Species 9. (Mus. Cuming.)

MESODESMA CUNEATA. *Mes. testâ trigonâ, subventricosâ, inæquilaterali, latere postico breviore, rotundato, antico longiore, latiusculo, declivi-angulato; albâ, tenui-striatâ, epidermide vix nullâ.*

THE WEDGE-LIKE MESODESMA. Shell triangular, somewhat ventricose, inequilateral, posterior side the shorter, rounded, anterior longer, rather broad, slantingly angular; white, finely striated, with scarcely any epidermis.

DESHAYES, Anim. sans vert. vol. vi. p. 133.
Crassatella cuneata, Lamarck.

Hab. New Zealand; Hart.

Chiefly distinguished by the anterior side being the larger and longer.

Species 10. (Mus. Cuming.)

MESODESMA STRIATA. *Mes. testâ subtrigonâ, crassiusculâ, subæquilaterali, latere antico subangulato, postico rotundato; albâ, subrugosè lirato-striatâ et sulcatâ, epidermide vix nullâ.*

THE STRIATED MESODESMA. Shell somewhat triangular, rather thick, nearly equilateral, anterior side slightly angled, posterior rounded; white, rather roughly ridge-like striated and grooved, scarcely any epidermis.

DESHAYES, Encyclopédie Méthodique, vers, vol. ii. p. 443.
Mactra striata, Gmelin.
Crassatella striata, Lamarck.
Erycina striata, Sowerby.

Hab. ——?

The most coarsely ridge-like striated of the species.

Species 11. (Mus. Cuming.)

MESODESMA DONACIA. *Mes. testâ trigono-elongatâ, valdè compressâ, valdè inæquilaterali, latere antico brevissimo, abruptè truncato, postico producto, compresso-attenuato; albidâ, concentricè irregulariter striatâ, striis paucis minutis radiantibus, epidermide lutescente corneâ nitente indutâ.*

THE WEDGE MESODESMA. Shell triangularly elongate, very compressed, very inequilateral, anterior side very short, abruptly truncated, posterior produced, compressly attenuated; whitish, concentrically irregularly striated, with a few minute radiating striæ, covered with a shining yellowish-horny epidermis.

DESHAYES, Anim. sans vert. vol. vi. p. 133.
Mactra donacia, Lamarck.

Hab. Chili; Cuming.

A fine compressed *Donax*-shaped species, covered with a beautiful shining horny epidermis.

Species 12. (Mus. Cuming.)

MESODESMA ERYCINÆA. *Mes. testâ subtrigono-ovatâ, latiusculâ, compressâ, subæquilaterali, latere antico breviore, paululum truncato, ambobus rotundatis; opaco-albâ, leviter striatâ, epidermide olivaceo-castaneâ indutâ.*

THE ERYCINA MESODESMA. Shell somewhat triangularly ovate, rather broad, compressed, nearly equilateral, anterior side shorter, a little truncated, both sides rounded; opake-white, slightly striated, covered with an olive-chestnut epidermis.

DESHAYES, Anim. sans vert. vol. vi. p. 134.
Crassatella erycinæa, Lamarck.
Mesodesma Diemenensis, Quoy.

Hab. Singapore.

A compressed ovate shell, with the sides nearly equal, of an opake-white substance, covered with a rich olive-chestnut epidermis.

Species 13. (Mus. Cuming.)

MESODESMA HETERODON. *Mes. testâ oblongo-ovatâ, subtrigonâ, inæquilaterali, latere antico concavo-angulato et truncato, crassiusculo, postico compresso-rotundato; albâ, lævigatâ, nitente, epidermide tenui corneâ lutescente-fuscâ indutâ.*

THE IRREGULAR-TOOTHED MESODESMA. Shell oblong-ovate, subtriangular, inequilateral, anterior side concavely angled and truncated, rather thick, posterior compressly rounded; white, smooth, shining, covered with a thin yellowish brown-horny epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. North-west Australia; Dring.

A smooth shining species, covered with a yellowish-brown epidermis, concavely truncated at the posterior end.

Species 14. (Mus. Cuming.)

MESODESMA JAURESII. *Mes. testâ subquadrato-oblongâ, gibbosiusculâ, crassâ, inæquilaterali, latere antico obtusè curvato et truncato, postico subattenuato-rotundato; opaco-albâ, rugosissimè striatâ, epidermide luteo-olivaceâ versus marginem indutâ.*

JAURÈS' MESODESMA. Shell somewhat squarely oblong, rather gibbous, thick, inequilateral, anterior side obtusely curved and truncated, posterior subattenuately rounded; opake-white, very roughly striated, covered towards the margin with a yellowish-olive epidermis.

DE JOANNIS, Guerin's Mag. de Zool. 1834.

Hab. St. George's Bank, Massachusetts, United States; Gould.

Particularly characterized by its coarse opake-white roughly striated exterior.

15

16

17

18

19

20

21

Sowerby del. et lith.

Vincent Brooks Imp.

MESODESMA.

PLATE III.

Species 15. (Mus. Cuming.)

MESODESMA MACTROIDES. *Mes. testâ elongato-oblongâ, ad umbones trigonâ, tenuiculâ, inæquilaterali, utrinque hiante, latere antico declivi-rotundato, postico producto; subpellucido-albâ, nitenta, ad latere striatâ, ad marginem epidermide fusco-nigrâ indutâ.*

THE MACTRA-LIKE MESODESMA. Shell elongately oblong, triangular at the umboes, rather thin, inequilateral, gaping at both ends, anterior side slantingly rounded, posterior produced; subtransparent-white, shining, striated at the sides, covered with a brown-black epidermis at the margin.

DESHAYES, MS. (Mus. Cuming.)

Hab. Australia.

Of a somewhat distinct typical character, of a thinnish subpellucid texture, elongately oblong in form, rounded and gaping at each end.

Species 16. (Mus. Cuming.)

MESODESMA PLANA. *Mes. testâ obliquè trigono-orbiculari, compresso-planâ, inæquilaterali, latere antico paululum breviore; albidâ, concentricè striatâ, epidermide tenui lutescente-sericeâ indutâ.*

THE FLAT MESODESMA. Shell obliquely triangularly orbicular, compressly flattened, inequilateral, anterior side a little the shorter; whitish, concentrically striated, covered with a thin yellowish silky epidermis.

HANLEY, Pro. Zool. Soc. 1843, p. 102.

Hab. Island of Ticao, Philippines; Cuming.

A convexly compressed rather solid species, having very much the appearance of an *Astarte*.

Species 17. (Mus. Cuming.)

MESODESMA INTERMEDIA. *Mes. testâ trigono-ovâtâ, crassiusculâ, latere antico brevi, angulato-truncato, postico rotundato; fuscescente-albâ, subrugoso-striatâ, ad umbones lævigatâ.*

THE INTERMEDIATE MESODESMA. Shell triangularly ovate, rather thick, anterior side short, angularly truncated, posterior rounded; fuscous-white, rather roughly striated, smooth at the umboes.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

Of more solid growth than the preceding species, and of more regular triangular form.

Species 18. (Mus. Cuming.)

MESODESMA SPISSA. *Mes. testâ trigono-oblongâ, crassâ, anticè subacutè angulatâ et truncatâ, posticè rotundatâ, ad umbones compressâ, areâ posticâ latiusculâ, subconcavâ; fuscescente-albâ, irregulariter striatâ.*

THE MASSIVE MESODESMA. Shell triangularly oblong, thick, anteriorly rather sharply angled and truncated, posteriorly rounded, compressed at the umboes, posterior area rather broad, subconcave; light fuscous-white, irregularly striated.

Hab. New Zealand; Hart.

A rather large *Donax*-shaped species, of solid growth and of a stone-white semifossil aspect.

Species 19. (Mus. Cuming.)

MESODESMA TRIGONA. *Mes. testâ trigono-ovatâ, crassâ, gibbosâ, subæquilaterali, posticè rotundatâ, anticè subangulato-rostratâ, areâ anticâ latâ, subcordiformi; albidâ, rufescente-fulvo sparsim tinctâ, concentricè irregulariter liratâ et striatâ, versus umbones lævigatâ, nitente.*

THE TRIANGULAR MESODESMA. Shell triangularly ovate, thick, gibbous, nearly equilateral, posteriorly rounded, anteriorly rather angularly beaked, anterior area broad, somewhat heart-shaped; whitish, sparingly tinged with reddish-fulvous, concentrically irregularly ridged and striated, smooth, shining towards the umboes.

DESHAYES, Ency. Méth. vers. vol. ii. p. 444.

Hab. ——?

This approaches more than any to the typical form of *Crassatella*, represented by *C. rostrata*.

Species 20. (Mus. Cuming.)

MESODESMA GLABRATA. *Mes. testâ trigono-ovatâ, compressâ, solidiusculâ, subæquilaterali, posticè rotundatâ, anticè obtusè angulatâ, areâ anticâ oblongo-cordatâ; concentricè corrugato-liratâ, ad umbones glabratâ.*

THE SMOOTH MESODESMA. Shell triangularly ovate, compressed, rather solid, nearly equilateral, poste-

riorly rounded, anteriorly obtusely angled, anterior area oblong-cordate; concentrically wrinkle-ridged, smooth at the umboes.

Deshayes, Anim. sans vert. vol. vi. p. 133.

Crassatella glabrata, Lamarck.

Hab. Australia.

The shell figured in Conch. Systematica under this name is *M. erycinæa*, a shell smooth and covered with a polished horny epidermis throughout. Lamarck characterizes his *C. glabrata* as being grooved.

Species 21. (Mus. Cuming.)

Mesodesma Novæ-Zelandiæ. *Mes. testâ oblongo-ovatâ, transversâ, solidiusculâ, subæquilaterali, lateribus rotundatis, antico paululum breviore; albidâ, irregulariter striatâ, epidermide tenui corneâ fulvescente-albâ nitente indutâ.*

The New Zealand Mesodesma. Shell oblong-ovate, transverse, rather solid, nearly equilateral, sides rounded, anterior a little the shorter; whitish, irregularly striated, covered with a thin fulvous-white shining horny epidermis.

Mya Novæ-Zelandiæ, Chemnitz, Conch. Cab. vol. vi. pl. 3. f. 19, 20.

Mya australis, Gmelin.

Mactra australis, Dillwyn.

Mesodesma Chemnitzii, Deshayes.

Hab. New Zealand; Earl.

Chiefly distinguished by its transverse form, which has no inclination whatever to the *Donax* form characteristic of this genus.

22

23

24

25

26

27

28

29

30

31

Sowerby del. et lith.

Vincent Brooks Imp.

MESODESMA.

PLATE IV.

Species 22. (Mus. Cuming.)

MESODESMA ANGULUS. *Mes. testâ acutè obliquè oblongo-angulatâ, compressâ, anticè brevissimè truncatâ, abruptè retusâ, ad umbones subrostratâ, posticè tenui-rotundatâ; nitente-albâ, obsoletè lineari-sulcatâ.*

THE ANGLE MESODESMA. Shell sharply obliquely oblong-angled, compressed, anteriorly very shortly truncated, abruptly blunted, somewhat beaked at the umboes, posteriorly thinly rounded; shining white, obsoletely linearly grooved.

DESHAYES, MS. (Mus. Cuming.)

Hab. Philippine Islands.

A small, highly-polished, subtransparent white shell, remarkably abruptly shortened at the posterior end.

Species 23. (Mus. Cuming.)

MESODESMA MACRODON. *Mes. testâ subtrigono-orbiculari, subæquilaterali, lateribus ambobus declivibus, deinde rotundatis, antico paulo breviore; albidâ, concentricè sulcatâ et liratâ, liris versus umbones obsoletis.*

THE LARGE-TOOTHED MESODESMA. Shell somewhat triangularly orbicular, nearly equilateral, both sides slanting, then rounded, anterior side a little the shorter; whitish, concentrically grooved and ridged, ridges obsolete towards the umboes.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

A small, *Astarte*-shaped species, strongly but somewhat irregularly ridged towards the margin.

Species 24. (Mus. Cuming.)

MESODESMA RETUSA. *Mes. testâ subquadrato-oblongâ, tenuiculâ, concavâ, valdè inæquilaterali, latere antico peculiariter brevi et truncato, posticq rotundato; albidâ, obliquè concentricè striatâ, ad umbones carneo tinctâ, versus marginem epidermide luteo-fuscâ indutâ.*

THE BLUNT MESODESMA. Shell somewhat squarely oblong, rather thin, concave, very inequilateral, anterior side peculiarly short and truncated, posterior rounded; whitish, obliquely concentrically striated, tinged with flesh at the umboes, covered towards the margin with a yellowish-brown epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

A rather thin obliquely oblong species, peculiarly abruptly shortened on the posterior side, having somewhat the typical form of *Cypricardia*.

Species 25. (Mus. Cuming.)

MESODESMA LANCEOLATA. *Mes. testâ trigono-lanceolatâ, cuneiformi, valdè inæquilaterali, latere antico tumidiusculo, abruptè truncato, lato, postico lanceolato-attenuato; albidâ, nitente, parum striatâ.*

THE LANCEOLATE MESODESMA. Shell triangularly lanceolate, wedge-shaped, very inequilateral, anterior side rather swollen, abruptly truncated, broad, posterior side lanceolately attenuated; whitish, shining, but little striated.

DESHAYES, MS. (Mus. Cuming.)

Hab. North-west Australia; Dring.

The most peculiarly elongated wedge form of the genus.

Species 26. (Mus. Cuming.)

MESODESMA CRASSULA. *Mes. testâ obliquè trigono-orbiculari, subplanâ, lateribus ambobus declivibus, deinde rotundatis, antico breviore; albidâ, ad umbones obscurè radiatâ, leviter striatâ, versus marginem epidermide tenui corneâ nitente indutâ.*

THE THICKISH MESODESMA. Shell obliquely triangularly orbicular, rather flat, both sides slanting, then rounded, anterior the shorter; whitish, obscurely rayed at the umboes, faintly striated, covered towards the margin with a thin shining horny epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

Closely allied to *M. plana*, but of less solid texture.

Species 27. (Mus. Cuming.)

MESODESMA SULCATA. *Mes. testâ trigono-ovatâ, subventricosâ, æquilaterali, latere antico latiore, concentricè sulcatâ et densè liratâ, liris ad aream posticam leviter elevatis; lutescente-albâ.*

THE GROOVED MESODESMA. Shell triangularly ovate, rather ventricose, equilateral, anterior side the broader,

concentrically grooved and densely ridged, ridges slightly raised on the posterior area; yellowish-white.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

An equilateral triangularly transverse species, rather densely ridged and grooved.

Species 28. (Mus. Cuming.)

MESODESMA TRIQUETRA. *Mes. testâ obliquè triangulari, crassâ, valdè gibbosâ, inæquilaterali, latere postico brevi, rotundato, antico longiore, angulato-producto, areâ latâ, concavo-cordatâ, umbonibus parvis, subdistantibus, ligamento subexterno; sordidè albâ.*

THE THREE-CORNERED MESODESMA. Shell obliquely triangular, thick, very gibbous, inequilateral, posterior side short, rounded, anterior longer, angularly produced, area broad, concavely heart-shaped, umboes small, rather distant, ligament subexternal; dead white.

HANLEY, Pro. Zool. Soc. 1843. p. 101.

Anapa triquetra, Gray.

Hab. Van Diemen's Land.

♀ [A gibbous *Mulinia*-like species, with an unusually large and broad anterior area, typically distinct from any other species of the genus.

Species 29. (Mus. Cuming.)

MESODESMA MITIS. *Mes. trigono-ovatâ, subventricosâ, subæquilaterali, latere antico paulo breviore, vix truncato; albâ, irregulariter sulcato-striatâ.*

THE MILD MESODESMA. Shell triangularly ovate, rather ventricose, nearly equilateral, anterior side a little the shorter, scarcely truncated; white, irregularly groove-striated.

DESHAYES, MS. (Mus. Cuming.)

Hab. ——?

A nearly equilateral transverse shell, of simple character.

Species 30. (Mus. Cuming.)

MESODESMA LAYARDI. *Mes. testâ trigono-ovatâ, subcompressâ, vix æquilaterali, latere antico obtusè triangulari, latiore; albidâ, pallidè violaceo-tinctâ, irregulariter striatâ, striis ad latera rugosis, intus purpurascente-violaceâ.*

LAYARD'S MESODESMA. Shell triangularly ovate, rather compressed, scarcely equilateral, anterior side obtusely triangular, broader; whitish, tinged with pale violet, irregularly striated, striæ rough at the sides, interior purple-violet.

DESHAYES, MS. (Mus. Cuming.)

Hab. Ceylon; E. L. Layard.

Chiefly distinguished by its delicate purple-violet colouring.

Species 31. (Mus. Cuming.)

MESODESMA PRÆCISA. *Mes. testâ trigono-oblongâ, crassâ, gibbosiusculâ, valdè inæquilaterali, latere antico abruptè truncato, postico producto, rotundato; albidâ, ferrugineo-fusco tinctâ, ad marginem epidermide ferrugineo-nigricante indutâ.*

THE CHOPPED MESODESMA. Shell triangularly oblong, thick, rather gibbous, very inequilateral, anterior side abruptly truncated, posterior produced and rounded; whitish, tinged with rust-brown, covered at the margin with a rust-black epidermis.

DESHAYES, MS. (Mus. Cuming.)

Hab. Van Diemen's Land; Gunn.

A rather solid rust-stained shell, very abruptly truncated at the anterior end.

MESODESMA.

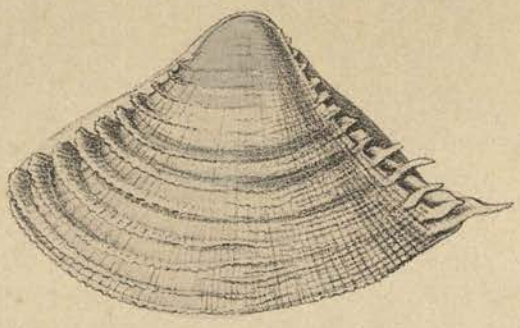
	Plate.	Species.
angulus, *Desh.*	IV.	22
angusta, *Desh.*	I.	3
arctata (*Mactra*), Conrad	II.	8
Chemnitzii, Desh.	III.	21
cornea (*Mactra*), Poli	I.	1
crassula, *Desh.*	IV.	26
cuneata (*Crassatella*), Lam.	II.	9
Diemenensis, Quoy	II.	12
donacia (*Mactra*), Lam.	II.	11
donacilla, Desh.	I.	1
elongata, *Desh.*	I.	5
erycinæa (*Crassatella*), Lam.	II.	12
glabrata (*Crassatella*), Lam.	III.	20
heterodon, *Desh.*	II.	13
intermedia, *Desh.*	III.	17
Jauresii, *De Joannis*	II.	14
lanceolata, *Desh.*	IV.	25
lata, *Desh.*	I.	4
Layardi, *Desh.*	IV.	30
macrodon, *Desh.*	IV.	23
Mactroides, *Desh.*	III.	15
mitis, *Desh.*	IV.	29
nitida, *Desh.*	I.	6
Novæ-Zelandiæ (*Mya*), Chem.	III.	21
ovalis, *Desh.*	I.	7
plana, *Hanley*	III.	16
præcisa, *Desh.*	IV.	31
retusa, *Desh.*	IV.	24
spissa, *Reeve*	III.	18
striata (*Mactra*), Gmelin	II.	10
sulcata, *Desh.*	IV.	27
transversa, *Desh.*	I.	2
trigona, *Desh.*	III.	19
triquetra, *Hanley*	IV.	28

MONOGRAPH

OF THE GENUS

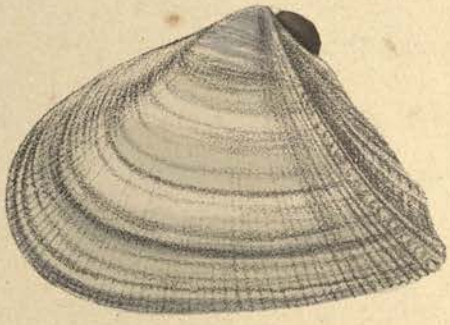
D O N A X.

"Slime the material, but the slime was turned
To adamant by their petrific touch:
Frail were their frames, ephemeral their lives,
Their masonry imperishable."—*Montgomery.*



1

2a



2b

3

4a

4b

5

Sowerby del. et lith.

Vincent Brooks Imp.

DONAX.

PLATE I.

Genus DONAX, *Linnæus.*

Testa trigono-ovata vel oblonga, plus minus cuneata, interdum flexuosa, æquivalvis, plerumque valdè inæquilateralis, latere postico sæpissimè abruptè truncato, interdum lævigata, plerumque radiatim lineari-sulcata. Dentes cardinales alterius valvæ duo, alterius unicus, supernè bifidus; dentes laterales duo vel unus, plus minus remoti. Ligamentum externum, breve, plerumque bipartitum, partim post umbones positum. Impressio muscularis pallii sinu magno.

Shell triangularly ovate or oblong, more or less wedge-shaped, sometimes flexuous, equivalve, generally very inequilateral, the posterior side being often very abruptly truncated, sometimes smooth, generally radiately linearly grooved. Two cardinal teeth in one valve, and one in the other, bifid at the upper part; two or one lateral teeth, more or less distant. Ligament external, short, generally bipartite, partially placed behind the umboes. Muscular impression of the mantle with a large sinus.

There is scarcely any assemblage of bivalves so distinct in generic character as those which have been associated, without change, from the time of Linnæus, under the head of *Donax*. They are distinguished by little variation either in form, sculpture, or colouring. In form they are typically of a triangular wedge-shape, the anterior side being long and rounded, the posterior very short and abruptly truncated. In sculpture they are, with few exceptions, either plain, or, more generally, radiately linearly grooved. In colour they are mostly of a uniform fulvous or dull grey, frequently, however, tinted with rays. They have neither the variety of contour nor the spines and laminæ, unless excepting the *D. scortum*, which characterize the *Venus* and *Cockle* tribes, nor do they excite the attention of connoisseurs by much variety or brilliancy of colour.

Of the species contained in the following monograph, from sixty to seventy in number, more than half have not yet been figured. The conchologists who have paid most attention to this genus in the present day, are M. Deshayes and Mr. Hanley; a few species have also been described by M. Philippi and Dr. Gray. The habitats of the *Donaces* are in almost all temperate and tropical seas; so miscellaneous indeed are they, that their geographical distribution presents no special features for observation.

Species 1. (Fig. 1 and 3, Mus. Cuming.)

DONAX SCORTUM. *Don. testâ trigono-oblongâ, gibbosâ, umbonibus angulato-approximatis, subcentralibus, concentricè subirregulariter densè lamellosâ, striis subtilibus radiantibus decussatis, lamellis anticis erectis, fimbriatis, interstitiis clathratis, posticis tenuioribus numerosis, ad angulum plus minus squamato-spinosis; sordidè albâ, intus violaceâ; latere antico subangulato, lunulâ oblongâ, postico acutissimè angulato, latissimè concavo-truncato.*

THE HIDE DONAX. Shell triangularly oblong, gibbous, umboes angularly approximated, nearly central; concentrically somewhat irregularly densely lamellose, decussated with radiating striæ, anterior lamellæ erect, fimbriated, interstices latticed, posterior lamellæ thinner and more numerous, more or less squamately spinose on the angle; dirty white, violet in the interior; anterior side slightly angled, with an oblong lunule, posterior very sharply angled, very broadly concavely truncated.

LINNÆUS, Syst. Nat. (12th edit.) p. 1126.

Testa juvenis: *Donax pubescens*, Linnæus.

Hab. Cape of Good Hope.

There can be little doubt but that the Linnæan *D. pubescens*, represented at Fig. 1, is the young of the well-known adult *D. scortum*, Fig. 3.

Species 2. (Mus. Cuming.)

DONAX DENTIFERA. *Don. testâ trigono-ovatâ, latiusculâ, compressâ, anticè rotundatâ, posticè acutè crenulatâ et plano-truncatâ, areâ densè granulato-striatâ, versus marginem bidenticulatâ; sordidè cinereâ vel fulvescente, radiatim tenui-sulcatâ, liris posticis crenulatis.*

THE TOOTHED DONAX. Shell triangularly ovate, rather broad, compressed, anteriorly rounded, posteriorly sharply angled and flatly truncated, with the area densely crenulately striated, towards the margin double-denticulated; dull ash or fulvous, radiately finely grooved, the posterior ridges crenulated.

HANLEY, Pro. Zool. Soc. 1843, p. 6.

Hab. Panama.

An extremely characteristic species, chiefly remarkable for two pairs of interlocking teeth at the ventral posterior end of the shell.

Species 4. (Fig. *a*, *b*, Mus. Cuming.)

DONAX DELTOIDES. *Don. testâ trigono-ovatâ, solidiusculâ, compressâ, radiatim subtilissimè striatâ, lævigatâ, politâ, purpurascente-fuscâ vel fulvâ, umbonibus interdum violaceis, latere antico rotundato, postico obtusè truncato, areâ convexâ.*

THE DELTOID DONAX. Shell triangularly ovate, rather solid, compressed, radiately very finely striated, smooth, polished, purplish-brown, or fulvous, umboes sometimes violet, anterior side rounded, posterior obtusely truncated, area convex.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 241.

Hab. Brisbane, East Coast of New Holland; Strange.

The *D. epidermia* of Lamarck is probably a variety of this species.

Species 5. (Mus. Cuming.)

DONAX SERRA. *Don. testâ oblongo-cuneatâ, solidiusculâ, compressâ, lævigatâ, sub lente radiatim striatâ, prope angulum posticum sulcatâ; pallidè spadiceâ, ad umbones violaceo-radiatâ; latere antico subacuminato-rotundato, postico obtusè angulato, undato-corrugato, ad extremitatem hiante.*

THE SAW DONAX. Shell oblong wedge-shaped, rather solid, compressed, smooth, beneath the lens radiately striated, near the posterior angle grooved; light fawn, violet-rayed at the umboes; anterior side subacuminately rounded, posterior obtusely angled, wave-wrinkled, gaping at the extremity.

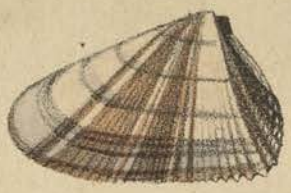
CHEMNITZ, Conch. Cab. vol. vi. p. 257. pl. 25. f. 251, 252.

Donax ringens, Lamarck.

Capsa ringens, Deshayes.

Hab. Cape of Good Hope.

Distinguished by its ample oblong-compressed form and conspicuous wave-wrinkled posterior area.



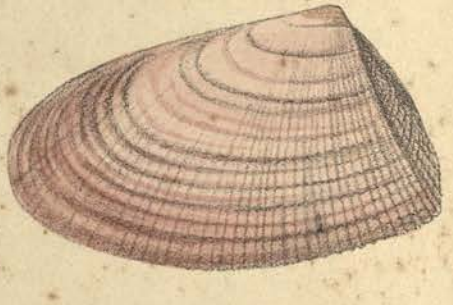
c

7a

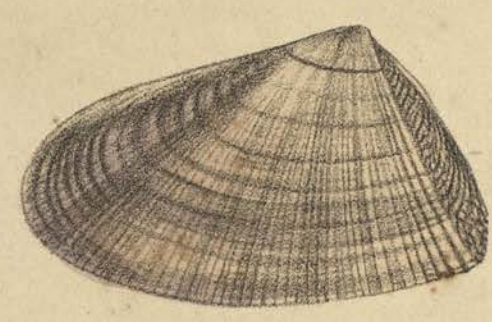
7b

8

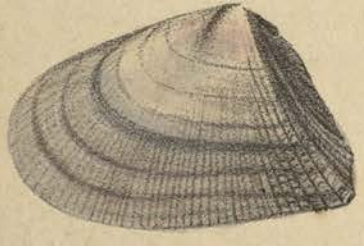
9a



9b



9c



10

11

12

Sowerby del et lith.

Vincent Brooks Imp.

DONAX.

PLATE II.

Species 6. (Mus. Cuming.)

DONAX HANLEYANA. *Don. testâ trigono-cuneatâ, radiatim lineari-sulcatâ, cinerascente-albâ, purpurascente-roseo latiradiatâ, valdè inæquilaterali, posticè gibbosâ, abruptè truncatâ, anticè acuminato-coarctatâ et paululum hiante; areâ posticâ convexâ, concentricè granulatâ, utrinque tenuicarinatâ.*

HANLEY'S DONAX. Shell triangularly wedge-shaped, radiately linearly grooved, pale ash-white, broadly rayed with purplish-rose, very inequilateral, posteriorly gibbous, abruptly truncated, anteriorly acuminately contracted and a little gaping; posterior area convex, concentrically granulated, finely keeled on each side.

PHILIPPI, MS. (Mus. Cuming.)

Hab. Rio Janeiro.

Chiefly distinguished by the acuminated and pinched growth of the anterior end, whilst the posterior is full and granulated.

Species 7. (Fig. *a*, *b*, Mus. Cuming.)

DONAX TRIFASCIATA. *Don. testâ subtrigono-ovatâ, latiusculâ, compressâ, tenuissimè radiatim striatâ; albidâ, roseo trifasciatâ, vel cinereâ, plumbeo-tinctâ; lateribus declivi-rotundatis, postico vix truncato, obtusè angulato, crispato-corrugato.*

THE THREE-BANDED DONAX. Shell somewhat triangularly ovate, rather broad, compressed, very finely radiately striated; whitish, three-banded with rose, or ash-colour, lead-stained; sides slantingly rounded, posterior side scarcely truncated, obtusely angled, crispately wrinkled.

Hab. Philippine Islands.

A compressly ovate species, variously coloured, with the posterior side delicately crisply wrinkled and little truncated.

Species 8. (Mus. Cuming.)

DONAX COMPRESSA. *Don. testâ trigono-cuneiformi, compressissimâ, posticè latâ, obtusè angulatâ, anticè rotundatâ, radiatim minutissimè densè striatâ; areâ posticâ minutissimè crispato-corrugatâ; griseo-cinereâ, lineis obscurè venosâ, ad umbones violaceo triradiatâ.*

THE COMPRESSED DONAX. Shell triangularly wedge-shaped, very compressed, posteriorly broad, obtusely angled, anteriorly rounded, radiately very minutely densely striated; posterior area very minutely crispately wrinkled; greyish-ash, obscurely veined with lines, three-rayed with violet at the umboes.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 240.

Hab. Sumatra.

Peculiarly compressed from the posterior side, which is broad and obtusely angled.

Species 9. (Mus. Cuming.)

DONAX RUGOSA. *Don. testâ elongato-oblongâ, solidiusculâ, densè radiatim sulcatâ; cinereo-spadiceâ, interdum albifasciatâ, vel miniato tinctâ; valdè inæquilaterali, latere postico abruptissimè truncato, ad angulum carinato; areâ concentricè undato-corrugatâ, latere antico acuminato-rotundato.*

THE ROUGH DONAX. Shell elongately oblong, rather solid, densely radiately grooved; ash-fawn, sometimes white-banded, or scarlet-tinged, very inequilateral, posterior side very abruptly truncated, keeled at the angle; area concentrically wave-wrinkled, anterior side acuminately rounded.

LINNÆUS, Syst. Nat. (12th edit.) p. 1127.

Hab. Gold Coast, West Africa.

Distinguished by its narrow oblong-conical form and wave-wrinkled posterior area.

Species 10. (Mus. Cuming.)

DONAX ASSIMILIS. *Don. testâ rotundato-oblongâ, medio subcontractâ, sordidè cinereâ, ad marginem plumbeo-fasciatâ, ad umbones violaceo radiatâ, radiatim densè lineari-sulcatâ, posticè granoso-decussatâ, latere antico rotundato, postico concavo-truncato.*

THE SIMILAR DONAX. Shell rotundately oblong, subcontracted in the middle, dull ash-colour, lead-banded at the margin, violet-rayed at the umboes, radiately densely linearly grooved, posteriorly granosely decussated, anterior side rounded, posterior concavely truncated.

HANLEY, MS. (Mus. Cuming.)

Hab. Panama.

A dull obese shell, densely grained about the posterior area.

Species 11. (Mus. Cuming.)

DONAX CARINATA. *Don. testâ elongato-cuneiformi, gibbosâ, anticè acuminatâ, posticè concavo-truncatâ, lateribus ab umbonibus subcentralibus declivibus; fumeo-castaneâ, ad umbones violaceâ; lævigatâ, politâ, versùs marginem densè lineari-sulcatâ.*

THE KEELED DONAX. Shell elongately wedge-shaped, gibbous, anteriorly acuminated, posteriorly concavely truncated, sides slanting from the umboes, which are nearly central; smoky-chestnut, violet at the umboes; smooth, polished, towards the margin densely linearly grooved.

HANLEY, Pro. Zool. Soc. 1843, p. 5.

Hab. San Blas, California.

Distinguished by its equislanting elongately wedge-shaped form, and polished chestnut colouring.

Species 12. (Mus. Cuming.)

DONAX ASPER. *Don. testâ trigono-cuneatâ, medio latâ et gibbosulâ, ad umbones rostratâ et elevato-contractâ, cinerascente-albâ, subopacâ, radiatim densè liratâ, ad latus posticum et ad aream densè corrugato-crenatâ, latere antico subâcuminato-rotundato, postico latè concavo-truncato.*

THE ROUGH DONAX. Shell triangularly wedge-shaped, broad and rather gibbous in the middle, beaked, elevately contracted at the umboes, ash-white, rather opake, radiately densely grooved, at the posterior side and area densely corrugately crenated, anterior side rather acuminately rounded, posterior broadly concavely truncated.

HANLEY, MS. (Mus. Cuming.)

Hab. Tumbez, Peru; Cuming.

A very characteristic species, elevately beaked as it were about the umboes, and very concavely truncated on the posterior side, whilst the whole of the posterior half of the shell is densely wrinkle-crenated.

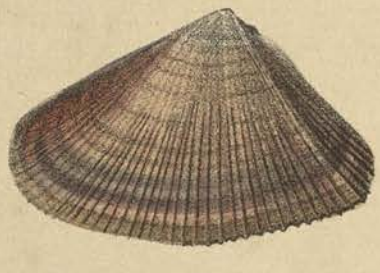
13a

14a

13b

14b

15a



16a

15b

17a

17b

16b

Sowerby del. et lith.

Vincent Brooks Imp.

DONAX.

PLATE III.

Species 13. (Mus. Cuming.)

DONAX TICAONICA. *Don. testâ trigono-ovatâ, ad umbones acutè angulato-productâ, deinde compressâ, lævigatâ, nitente, ad aream posticam crispato-striatâ, albidâ aut fulvo-castaneâ, epidermide corneâ interdum indutâ, latere postico brevissimè truncato, antico acuminato-rotundato.*

THE TICAO DONAX. Shell triangularly ovate, sharply angled and produced at the umboes, then compressed, smooth, shining, crisply striated on the posterior area, whitish or fulvous-chestnut, sometimes covered with a horny epidermis, posterior side very shortly truncated, anterior acuminately rounded.

HANLEY, MS. (Mus. Cuming.)

Hab. Island of Ticao, Philippines; Cuming.

Chiefly distinguished by the sharply angled produced growth of the umboes.

Species 14. (Mus. Cuming.)

DONAX COLUMBELLA. *Don. testâ trigono-ovatâ, tenuiculâ, compressâ, sub lente minutè radiatim striatâ, nitente, rosaceâ vel purpurascente-cinereâ, concentricè fasciatâ, latere antico rotundato, postico declivi-truncato, obtusè angulato.*

THE LITTLE DOVE DONAX. Shell triangularly ovate, rather thin, compressed, beneath the lens minutely radiately striated, shining, pinkish or purplish-ash, concentrically banded, anterior side rounded, posterior slantingly truncated, obtusely angled.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 242.

Hab. Swan River; Dr. Bacon.

A somewhat delicate species, variously coloured.

Species 15. (Mus. Cuming.)

DONAX CUNEATA. *Don. testâ subtrigono-oblongâ, compressâ, sub lente minutè radiatim striatâ, nitente, purpurascente, albifasciatâ, interdum plumbeâ, lineis rufescentibus subtilissimè venosâ, latere antico acuminato-rotundato, postico latè angulato et crispato-granato.*

THE WEDGE-LIKE DONAX. Shell subtriangularly oblong, compressed, beneath the lens minutely radiately striated, shining-purplish, white-banded, sometimes lead-colour, finely veined with reddish lines, anterior side acuminately rounded, posterior broadly angled and crispately granuled.

LINNÆUS, Syst. Nat. (12th edit.) p. 240.

Hab. Ceylon.

A somewhat broad compressed species, crisply granuled on the posterior area, which is rather broadly bluntly angled.

Species 16. (Mus. Cuming.)

DONAX PUNCTATO-STRIATA. *Don. testâ trigono-ovatâ, solidiusculâ, umbonibus subcentralibus, compresso-gibbosis, radiatim punctato-striatis, striis sulciformibus; pallidè livido-fuscâ vel fulvo-castaneâ; lateribus declivi-angulatis, postico concavo-appresso.*

THE PUNCTURED-STRIATED DONAX. Shell triangularly ovate, rather solid; umboes nearly central, compressly gibbous, radiately punctured-striated, striæ groove-like; pale livid-brown, or fulvous-chestnut; sides slantingly angled, posterior concavely appressed.

HANLEY, Pro. Zool. Soc. 1843, p. 5.

Hab. Mazatlan, Gulf of California.

Of a peculiar stoutly angled *Crassatella*-like form, with the umboes nearly central.

Species 17. (Mus. Cuming.)

DONAX OVALINA. *Don. testâ ovatâ, compressiusculâ, utrinque convexâ, concentricè rudè striatâ, albidâ, nigricante-purpureo interruptè radiatâ, vel plumbeo-cinereo obscurè tenuivenosâ; lateribus subæqualiter rotundatis.*

THE OVAL DONAX. Shell ovate, rather compressed, everywhere convex, concentrically rudely striated, whitish, interruptedly rayed with darkish purple or leaden-ash, obscurely finely veined; sides nearly equally rounded.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. ——?

This has hardly the character of *Donax*, being in no degree wedge-shaped, but rather the external form of *Amphidesma*.

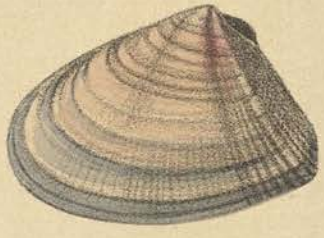
18

19

20

21

22a

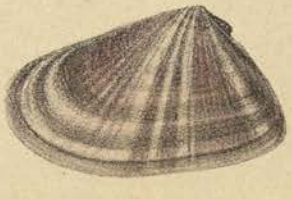


22b

23a

24

25



23b

Sowerby del. et lith.

Vincent Brooks Imp.

DONAX.

PLATE IV.

Species 18. (Mus. Cuming.)

DONAX NAVICULA. *Don. testâ oblongo-rhomboideâ, gibbosiusculâ, solidâ, lævigatâ, obsoletè radiatim sulcatâ, epidermide pallidè corneâ nitente indutâ, umbonibus subcentralibus, latere antico acuminato-rotundato, postico acuminato-truncato, rostrato; lunulâ areâque posticâ concavis, fumeo-nigricantibus, nitentibus.*

THE BOAT DONAX. Shell oblong-rhomboid, rather gibbous, solid, smooth, obsoletely radiately grooved, covered with a pale shining horny epidermis; umboes nearly central, interior side acuminately rounded, posterior acuminately truncated, beaked; lunule and posterior area concave, smoky-black, shining.

HANLEY, MS. (Mus. Cuming.)

Hab. Gulf of Nicoiyo, Central America; Cuming.

A very distinct and characteristic species, both in form and colouring.

Species 19. (Mus. Cuming.)

DONAX ANATINUS. *Don. testâ ovato-oblongâ, versus marginem subcompressâ, radiatim tenuistriatâ, albidâ, epidermide fulvescente indutâ, ad umbones subviolaceis; latere antico rotundato, postico obtusè declivi-angulato, vix truncato.*

THE DUCK'S BILL DONAX. Shell ovately oblong, rather compressed towards the margin, radiately finely striated, whitish, covered with a fulvous horny epidermis, a little violet at the umboes; anterior side rounded, posterior obtusely slantingly angled, scarcely truncated.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 249.

Donax trunculus, Auct. Brit.

Donax ruber, Turton.

Cuneus vittatus, Da Costa.

Hab. British Seas.

The well-known species of our coast, abundant on all sides.

Species 20. (Mus. Cuming.)

DONAX LUNULARIS. *Don. testâ subcylindraceo-oblongâ, crassiusculâ, valdè gibbosâ, radiatim densè tenuissimè sulcatâ, spadiceâ, concentricè saturatè fasciatâ; latere antico subproducto, rotundato, postico abruptè latè truncato.*

THE LUNULED DONAX. Shell somewhat cylindrically oblong, rather thick, very gibbous, radiately densely very finely grooved, fawn-coloured, concentrically darker-banded; anterior side somewhat produced, rounded, posterior abruptly broadly truncated.

PHILIPPI, MS. (Mus. Cuming.)

Hab. ——?

It is the posterior area, and not the lunule, as the name given to this species would infer, is so prominently developed.

Species 21. (Mus. Cuming.)

DONAX CULTER. *Don. testâ subflexuoso-oblongâ, medio contractâ, radiatim densè tenuisulcatâ, cærulescente-griseâ, violaceo pallidè tinctâ, intus intensè violaceâ; latere antico rotundato, postico gibboso, declivi-rostrato, vix angulato.*

THE PLOUGH-SHARE DONAX. Shell somewhat flexuously oblong, contracted in the middle, radiately densely finely grooved, bluish-grey, tinged with pale violet, deep violet within; anterior side rounded, posterior gibbous, slantingly beaked, scarcely angled.

HANLEY, MS. (Mus. Cuming.)

Hab. Gulf of California.

Distinguished from all other species by its peculiar *Modiola*-like form.

Species 22. (Fig. *a*, *b*, Mus. Cuming.)

DONAX CAYENNENSIS. *Don. testâ ovato-cuneatâ, subtrigonâ, compressâ, densè tenuissimè sulcatâ, liris posticis creberrimè crispato-clathratis; latere antico rotundato, postico abruptè convexo-truncato; lutescente-albâ, ad umbones roseâ, versus marginem griseo-fasciatâ, vel violaceo-fuscâ, ad umbones radiatâ.*

THE CAYENNE DONAX. Shell ovately wedge-shaped, subtriangular, compressed, densely very finely grooved, posterior ridges very closely crisply latticed; anterior side rounded, posterior abruptly convexly truncated, yellowish-white, rose at the umboes, grey banded towards the margin, or violet-brown, rayed at the umboes.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 245.

Hab. Panama and St. Elena, West Columbia; Cuming.

An interesting species of regular wedge-form, variously coloured.

Species 23. (Fig. *a*, *b*, Mus. Cuming.)

DONAX TRUNCULUS. *Don. testâ elongato-oblongâ, convexâ, solidiusculâ, posticè leviter sinuosâ, radiatim striatâ, versus marginem leviter sulcatâ; albidâ, epidermide fulvescente indutâ, interdum radiatâ, nitente; latere antico rotundato, postice breviter obtusè angulato, subtruncato.*

THE TRUNCATED DONAX. Shell elongately oblong, convex, rather solid, slightly sinuous posteriorly, radiately striated, striæ slightly grooved towards the margin; whitish, covered with a fulvous horny epidermis, sometimes rayed, shining; anterior side rounded, posterior shortly obtusely angled, slightly truncated.

LINNÆUS, Syst. Nat. (12th edit.) p. 1127.

Donax venusta, Poli.

Donax longa, Bronn.

Donax biradiata and *sexradiata*, Wood.

Hab. European Seas.

Of stout, oblong, rather solid growth, sometimes plain, sometimes rayed.

Species 24. (Mus. Cuming.)

DONAX CONTUSA. *Don. testâ elongato-oblongâ, subflexuosâ, obsoletè radiatim sulcatâ, sulcis numerosis, versus umbones evanidis; fulvescente-albâ, umbonibus rufescentibus, pallidè radiatis; umbonibus subcentralibus; latere antico rotundato, postico obtusè flexuoso-rostrato, vix truncato.*

THE BRUISED DONAX. Shell elongately oblong, rather flexuous, obsoletely radiately grooved, grooves numerous, fading towards the umboes; fulvous white, umboes reddish, pale-rayed; umboes nearly central, anterior side rounded, posterior obtusely flexuously beaked, scarcely truncated.

Hab. Mazatlan, Gulf of California.

Of an oblong bean-shaped form, scarcely truncated on the posterior side, with the umboes nearly central, and peculiarly white-rayed on a purple-red ground.

Species 25. (Mus. Cuming.)

DONAX SEMISTRIATA. *Don. testâ subtrigono-oblongâ, medio gibbosâ, radiatim lineari-sulcatâ, striis concentricis sub latus posticum decussatâ; albidâ, pallidè carneâ obscurè radiatâ, epidermide fulvescente corneâ versus marginem indutâ; latere antico subacuminato-rotundato, postico subflexuoso, obtusè declivi-angulato.*

THE HALF-STRIATED DONAX. Shell somewhat triangularly oblong, gibbous in the middle, radiately linearly grooved, decussated with concentric striæ on the posterior side; whitish, obscurely rayed with pale flesh, covered towards the margin with a fulvous horny epidermis; anterior side somewhat acuminately rounded, posterior subflexuous, obtusely slantingly angled.

POLI, Test. Siciliæ, pl. 3. f. 12.

Donax fabagella, Lamarck.

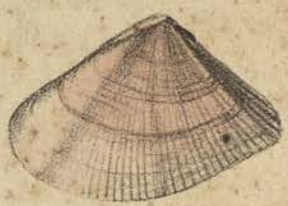
Hab. Mediterranean.

The posterior side of this species is decussated by a row of concentric grooved striæ.

26 a

26 b

26 c



27

28 a

28 b

29

30

31

32

Sowerby del. et lith.

Vincent Brooks Imp.

DONAX.

PLATE V.

Species 26. (Fig. *a*, *b*, *c*, Mus. Cuming.)

DONAX RADIANS. *Don. testâ trigono-ovatâ, solidiusculâ, compressâ, transversim striatâ, variè coloratâ, nunc plumbeâ, albo lentiginosâ, nunc lutescente-albâ, rufo-radiatâ, inæquilaterali, latere postico brevi, declivi, antico acuminato-rotundato.*

THE RAYED DONAX. Shell triangularly ovate, rather solid, compressed, transversely striated, variously coloured, sometimes lead-coloured, freckled with white, sometimes yellowish-white, rayed with red, inequilateral, posterior side short and slanting, anterior acuminately rounded.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 241.

Hab. Philippine Islands; Cuming.

I have not given to this species the name of *D. faba*, Chemnitz, because the figure in the 'Conchylien Cabinet,' vol. vi. pl. 26. f. 267, has not the triangular form characteristic of it. Lamarck has quoted that as a synonyme in error.

Species 27. (Mus. Cuming.)

DONAX LAMARCKII. *Don. testâ oblongo-ovatâ, solidiusculâ, gibbosâ, radiatim undique densè liratâ, carneo-lutescente, latere antico lanceolato-rotundato, postico latè declivi-truncato.*

LAMARCK'S DONAX. Shell oblong-ovate, rather solid, gibbous, everywhere densely ridged, flesh-tinged yellow, anterior side lanceolately rounded, posterior broadly slantingly truncated.

DESHAYES, MSS. Mus. Cuming.

Hab. ——?

A rather gibbous solid species, distinctly closely ridged throughout in rays from the umboes.

Species 28. (Fig. *a*, *b*, Mus. Cuming.)

DONAX BICOLOR. *Don. testâ ovato-cuneatâ, compressiusculâ, concentricè striatâ, striis posticis obsoletè crispato-granulatis, striis exiguis radiantibus decussatis, variè coloratâ, nunc rosaceâ, nunc albidâ, plumbeo radiatâ, latere antico rotundato, postico compressè obtusè angulato.*

THE TWO-COLOURED DONAX. Shell ovately wedge-shaped, rather compressed, concentrically striated, the posterior striæ obsoletely crisply granulated, decussated with very fine raised striæ, variously coloured, sometimes rose-tinted, sometimes whitish, rayed with lead-colour, anterior side rounded, posteriorly compressly obtusely angled.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vi. p. 243.

Hab. Island of Negros, Philippines; Cuming.

Chiefly distinguished by its broad compressly ovate form, and by the slight obtusely angled growth of the posterior side. In colour it is one of the most variable species of the genus.

Species 29. (Mus. Cuming.)

DONAX CONRADI. *Don. testâ elongato-ovatâ, gibbosiusculâ, ad marginem compressâ, lævigatâ, radiatim crebrisulcatâ, sulcis linearibus, liris intermediis posticis minutè serratis; albidâ, cinereo-fasciatâ; umbonibus purpureis, albo maculatis; lunulâ areâque posticâ cinereo-purpureis, latere antico elongato-rotundato, postico subconcavo-truncato.*

CONRAD'S DONAX. Shell elongately ovate, rather gibbous, compressed at the margin, smooth, radiately closely grooved, grooves linear, the posterior intermediate ridges minutely serrated; whitish, ash-banded; umboes purple, white-tipped; lunule and posterior area ash-purple, anterior side elongately rounded, posterior rather concavely truncated.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. Gulf of California.

An elongately oblong species, in which the posterior side has a slightly arched beaked growth.

Species 30. (Mus. Cuming.)

DONAX OBESULA. *Don. testâ abruptè cuneatâ, valdè gibbosâ, radiatim densè tenuiliratâ, concentricè pulcherrimè tenuicancellatâ, lutescente, latere antico peculiariter acuminato, postico latè truncato.*

THE STOUT DONAX. Shell abruptly wedge-shaped, very gibbous, radiately densely finely ridged, concentrically beautifully finely cancellated, yellowish, anterior side peculiarly acuminated, posterior broadly truncated.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. Peru.

A gibbous shortly truncated shell, rapidly acuminated anteriorly, very finely cancellated throughout.

Species 31. (Mus. Cuming.)

Donax lævigata. *Don. testâ rotundato-cuneatâ, lævigatâ, politâ, striis obsoletè radiatâ, lutescente-spadiceâ, ad marginem cærulescente; umbonibus cærulescentibus, luteo maculatis; latere antico acuminato-rotundato, postico brevissimo, abruptè truncato.*

The smooth Donax. Shell rotundately wedge-shaped, smooth, polished, obsoletely rayed with striæ; yellowish-fawn, bluish at the margin; umboes bluish, yellow-tipped; anterior side acuminately rounded, posterior side very short, abruptly truncated.

Deshayes, Pro. Zool. Soc. March, 1854.

Hab. ——?

Distinguished by its polished oblong-rounded form, and very abruptly truncated posterior side.

Species 32. (Mus. Cuming.)

Donax sordida. *Don. testâ trigono-cuneatâ, compressâ, densissimè radiatim liratâ, ad aream posticam decussatim crispato-serratâ, sordidè albâ, latere antico trigono-acuminato, postico acutè angulato, subconcavo-truncato.*

The dirty Donax. Shell triangularly wedge-shaped, compressed, very closely radiately ridged, on the posterior area decussately crisply serrated, dirty-white, anterior side triangularly acuminated, posterior sharply angled, and subconcavely truncated.

Hab. ——?

A very characteristic species, singularly resembling in its general contour the multivalve shell of the cirrhipede *Anatifa lævis*.

33

34

35

36

37

38

39

40

41

42

DONAX.

PLATE VI.

Species 33. (Mus. Cuming.)

DONAX ACUTANGULA. *Don. testâ elongato-oblongâ, curvatâ, subensiformi, eburneâ, lævigatâ, nitente, sub lente striis tenuissimis decussatâ, valdè inæquilaterali, latere antico rotundato, postico acutè angulato, concavo-truncato; areâ subtilissimè fimbriato-striatâ.*

THE SHARP-ANGLED DONAX. Shell elongately oblong, curved, somewhat sword-shaped, ivory-white, smooth, shining, beneath the lens decussated with very fine striæ, very inequilateral, anterior side rounded, posterior sharply angled, and concavely truncated; the area very finely fimbriately striated.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. Mouth of the Gaboon, West Africa.

A very delicate subtransparent ensiform species, very abruptly angularly truncated at the posterior end, the anterior being very elongately produced.

Species 34. (Mus. Cuming.)

DONAX NITIDA. *Don. testâ lanceolato-oblongâ, subtrigonâ, gibbosulâ, lævigatâ, nitente, eburneâ, ad umbones obsoletè carneo biradiatâ, latere antico acuminato-producto, postico declivi-truncato, angulato; areâ subconcavâ, concentricè corrugato-liratâ.*

THE SHINING DONAX. Shell lanceolately oblong, somewhat triangular, rather gibbous, smooth, shining, ivory-white, marked with two obsolete flesh-rays at the umboes, anterior side acuminately produced, posterior slantingly truncated, angled; area subconcave, concentrically wrinkle-ridged.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. East Australia; Strange.

Chiefly distinguished by its slantingly acuminated sides, and by the posterior area being conspicuously wrinkle-ridged, while the rest of the shell is smooth and highly polished.

Species 35. (Mus. Cuming.)

DONAX PULCHELLA. *Don. testâ elongato-oblongâ, medio subcompressâ, cinereo-albâ, griseo radiatâ et fasciatâ, concentricè striatâ, obsoletè radiatim sulcatâ, latere antico subangustè acuminato, postico brevissimo, obtusè angulato et rotundato, margine crenato.*

THE PRETTY DONAX. Shell elongately oblong, a little compressed in the middle, ash-white, banded and rayed with grey, concentrically striated, obsoletely radiately grooved, anterior side rather narrowly acuminated, posterior very short, obtusely angled and rounded, margin crenated.

HANLEY, Pro. Zool. Soc. 1843, p. 6.

Hab. West Indies.

A narrow oblong species, a little compressed in the middle, of a greyish-white, rayed and banded with blackish-grey.

Species 36. (Mus. Cuming.)

DONAX TRANSVERSA. *Don. testâ angustè elongatâ, tenuiculâ, gibbosâ, utrinque hiante, lævigatâ, sub lente obsoletè striatâ, lutescente-albâ, olivaceo-carneo fasciatâ et latiradiatâ; umbonibus violaceo radiatis, valdè inæquilaterali; latere antico recto, versus marginem declivi-rotundato, postico abruptè truncato, acutè angulato, ad angulum carinato; areâ concavâ, tenuiliratâ.*

THE TRANSVERSE DONAX. Shell narrowly elongated, rather thin, gibbous, gaping at each end, smooth, beneath the lens obsoletely striated, yellowish-white, banded and broadly rayed with olive-flesh; umboes violet-rayed, very inequilateral; anterior side straight, slantingly rounded towards the margin, posterior abruptly truncated, sharply angled, keeled at the angle; area concave, finely ridged.

SOWERBY, Tankerville Catalogue, App. p. 4. no. 226.

Hab. —— ?

An extremely characteristic species, of straight elongated growth, gaping at both ends, stained with violet in the interior.

Species 37. (Mus. Cuming.)

DONAX OWENII. *Don. testâ elongato-ovatâ, convexo-compressâ, lævigatâ, sub lente striis subtilissimè decussatâ; albidâ, lutescente versus marginem obscurè radiatâ, umbonibus violaceo radiatis; latere antico acuminato-rotundato, postico declivi-truncato, areâ concavâ, concentricè corrugato-liratâ.*

OWEN'S DONAX. Shell elongately ovate, convexly compressed, smooth, beneath the lens very finely decussately striated; whitish, obscurely rayed with yellow towards the margin, umboes rayed with violet; anterior side acuminately rounded, posterior slantingly truncated; area concave, concentrically wrinkle-ridged.

GRAY, MS. in Brit. Mus.; Hanley, Cat. Recent Shells, p. 81.

Hab. West Coast of Africa.

Of convexly elongated growth, obtusely angled at the posterior end, where the area, unlike the rest of the shell, is closely wrinkle-ridged.

Species 38. (Mus. Cuming.)

DONAX GRACILIS. *Don. testâ trigono-elongatâ, ad marginem arcuatâ et compressâ, versus umbones gibbosâ, lævigatâ, epidermide sordidè olivaceâ corneâ indutâ; latere antico rotundato, subrostrato, postico declivi-truncato, obtusè angulato.*

THE SLENDER DONAX. Shell triangularly elongated, arched and compressed at the margin, gibbous towards the umboes, smooth, covered with a dull olivaceous horny epidermis; anterior side rounded, slightly beaked, posterior slantingly truncated, obtusely angled.

HANLEY, MS. (Mus. Cuming.)

Hab. Gulf of Guayaquil; Cuming.

A smooth species, having somewhat the appearance of a narrow elongated *Capsa*.

Species 39. (Mus. Cuming.)

DONAX SCALPELLUM. *Don. testâ angustè elongatâ, rectâ, subcompressâ, utrinque paululum hiante, lævigatâ, politâ, albidâ, livido-purpurascente radiatâ et pallidè tinctâ, valdè inæquilaterali; latere antico rotundato, postico declivi-truncato; areâ subconcavâ, nitidè concentricè liratâ.*

THE LANCET DONAX. Shell narrowly elongated, straight, rather compressed, a little gaping at both ends, smooth, polished; whitish, rayed and faintly tinged with livid purple, very inequilateral; anterior side rounded, posterior slantingly truncated, area rather hollow, neatly concentrically ridged.

GRAY, Annals of Philosophy; and Wood, Index Testaceologicus, Supp. pl. 2. f. 1.

Hab. Gulf of California.

Of a peculiar straight *Solen*-like growth, smooth and highly polished, except on the posterior area, which is neatly concentrically ridged.

Species 40. (Mus Cuming.)

DONAX CALIFORNICA. *Don. testâ oblongo-ovatâ, subcurvatâ, griseo-albâ, nigricante-cæruleo fasciatâ et latiradiatâ, radiatim obsoletè densè sulcatâ, umbonibus violaceo eximiè biradiatis; subæquilaterali, lateribus rotundatis, postico vix angulato.*

THE CALIFORNIAN DONAX. Shell oblong-ovate, somewhat curved, greyish-white, banded and broad-rayed with blackish-blue, radiately obsoletely densely grooved, umboes marked with two small violet rays; nearly equilateral, sides rounded, the posterior scarcely angled.

CONRAD, Journ. Acad. Nat. Sci. Philadelphia, vol. vii. pl. 19. f. 21.

Hab. Gulf of California.

This species, wanting the posterior truncated area so characteristic of the genus, has more the form of a *Tellina*.

Species 41. (Mus. Cuming.)

DONAX BELLA. *Don. testâ oblongo-ovatâ, subtrigonâ, posticè gibbosâ, lævigatâ, nitente, obsoletè densè sulcato-radiatâ, eburneâ, radiis angustis roseis ornatâ; latere antico rotundato, postico declivi-truncato, vix angulato.*

THE NEAT DONAX. Shell oblong-ovate, somewhat triangular, gibbous posteriorly, smooth, shining, obsoletely densely groove-rayed, ivory-white, ornamented with narrow pink rays; anterior side rounded, posterior slantingly truncated, scarcely angled.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. Acapulco.

A delicately painted species, rather swollen towards the posterior side, and truncated obtusely.

Species 42. (Mus. Cuming.)

DONAX POLITA. *Don. testâ angustè oblongo-ovatâ, complanatâ, spadiceo-fuscescente undique tinctâ, et pallidè lentiginosâ et fasciatâ, subæquilaterali; lateribus rotundatis, postico sub umbones paululum truncato.*

THE POLISHED DONAX. Shell narrowly oblong-ovate, smooth, everywhere stained with fawn-brown, and faintly freckled and banded, nearly equilateral; sides rounded, posterior slightly truncated beneath the umboes.

POLI, Test. Siciliæ, pl. 21. f. 14, 15.

Psammobia polita, Da Costa.

Donax complanatus, Montagu.

Capsa complanata, Sowerby.

Donax longa, Philippi.

Hab. Mediterranean and South Britain.

This species partakes so much of the form and character of *Cytherea*, as hardly to come into the present genus. It has been referred both to *Capsa* and *Psammobia*.

43

44

45

46

47a

47b

48a

48b

48c

49

Sowerby del. et lith.

Vincent Brooks Imp.

DONAX.

PLATE VII.

Species 43. (Mus. Cuming.)

DONAX GRANIFERA. *Don. testâ trigono-ovatâ, solidiusculâ, gibbosâ, creberrimè radiatim lineari-sulcatâ, posticè densè corrugato-granosâ, albidâ, umbonibus violaceo remotè biradiatis; latere antico acuminato-rotundato, postico brevissimo, abruptè angulato-truncato.*

THE GRAINED DONAX. Shell triangularly ovate, rather solid, gibbous, very closely radiately linearly grooved, posteriorly densely wrinkle-grained, white, umboes distantly two-rayed with violet; anterior side acuminately rounded, posterior very short, and abruptly angularly truncated.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. —— ?

A stout white broadly triangular species, very abruptly angularly truncated.

Species 44. (Mus. Cuming.)

DONAX VENUSTA. *Don. testâ oblongo-ovatâ, subtrigonâ, compressâ, lævigatâ, politâ, posticè concentricè semisulcatâ, pallidè rosoceo-spadiceâ, albiradiatâ; latere antico rotundato, postico obtusè declivi-angulato; areâ concentricè sulcatâ.*

THE HANDSOME DONAX. Shell elongately ovate, subtriangular, compressed, smooth, polished, posteriorly concentrically half-grooved, pale rose-fawn, white-rayed; anterior side rounded, posterior obtusely slantingly angled; area concentrically grooved.

POLI, Test. utr. Siciliæ, pl. 19. f. 23, 24.

Hab. Mediterranean.

A polished shell, distinguished in all its varieties by a few concentric grooves on the posterior side, near the ventral margin.

Species 45. (Mus. Cuming.)

DONAX VARIEGATA. *Don. testâ subelongato-oblongâ, compressiusculâ, lævigatâ, politâ, albidâ, aurantio-tinctâ, fusco nitidè radiatim reticulatâ; latere antico subacuminato-rotundato, postico brevi, obtusè declivi-angulato.*

THE VARIEGATED DONAX. Shell subelongately oblong, rather compressed, smooth, polished, whitish, stained with orange, neatly radiately reticulated with brown; anterior side rather acuminately rounded, posterior short, obtusely slantingly angled.

Hab. —— ?

A small polished compressed species, distinguished by its orange-fawn colour, and pretty radiately reticulated painting.

Species 46. (Mus. Cuming.)

DONAX LUBRICA. *Don. testâ sublatè trigonâ, compressâ, concentricè irregulariter striatâ, posticè radiatim lineari-sulcatâ, cinerascente, saturatè fasciatâ; latere antico rotundato, postico brevissimo, obtusè truncato.*

THE SLIMY DONAX. Shell rather broadly triangular, compressed, concentrically irregularly striated, posteriorly linearly radiately grooved, pale ash, darker banded; anterior side rounded, posterior very short, obtusely truncated.

HANLEY, MS. (Mus. Cuming.)

Hab. —— ?

Of a broadly triangular form, with an extremely contracted posterior side, compressed throughout.

Species 47. (Fig. *a*, *b*, Mus. Cuming.)

DONAX VARIABILIS. *Don. testâ trigono-oblongâ, subangustâ, radiatim lineari-sulcatâ, lutescente aut albidâ aut variè roseo-radiatâ; latere antico acuminato-rotundato, postico lato, brevissimo, acutè angulato.*

THE VARIABLE DONAX. Shell triangularly oblong, rather narrow, radiately linearly grooved, yellowish or white, or variously pink-rayed; anterior side acuminately rounded, posterior broad, very short, sharply angled.

SAY, American Conchology, pl. 61. f. 1.

Hab. United States.

Chiefly distinguished by its pinched acuminately rounded anterior end.

Species 48. (Mus. Cuming.)

DONAX DENTICULATA. *Don. testâ trigono-cuneatâ, crassiusculâ, densè lineari-sulcatâ, albidâ, rufo et griseo variè radiatâ, interdum aurantiâ; latere antico sub-*

attenuato-rotundato, postico gibboso, biangulato; aream internâ corrugatâ.

The small-toothed Donax. Shell triangularly wedge-shaped, rather thick, densely linearly grooved, whitish, variously red and grey rayed, sometimes orange; anterior side somewhat attenuately rounded, posterior side gibbous, two-angled; inner area wrinkled.

Linnæus, Syst. Nat. (12th edit.) p. 1127.

Hab. West Indies.

A rather stout solid species, strongly linearly grooved throughout, double-angled on the posterior side, the area of the inner angle being wave-wrinkled.

Species 49. (Mus. Cuming.)

Donax obesa. *Don. testâ abbreviato-trigonâ, gibbosâ, obesâ, radiatim tenuè lineari-sulcatâ, sulcis minutissimè decussatis, latere antico subacuminato, postico obtusè globoso-truncato, albâ, posticè griseo-tinctâ.*

The stout Donax. Shell shortly triangular, gibbous, stout, radiately finely linearly grooved, grooves very minutely decussated, anterior side subacuminated, posterior obtusely globosely truncated, white, posteriorly stained with grey.

D'Orbigny, Voy. dans l'Amérique Méridionale.

Hab. Real Llejos, Central America; Cuming.

A small species, of peculiarly short stout swollen growth.

50

51

52

53

54

55

56

57

58

59

Sowerby del et lith

Vincent Brooks Imp.

(Magnified ¼ diam.)

DONAX.

PLATE VIII.

Species 50. (Mus. Cuming.)

DONAX MADAGASCARIENSIS. *Don. testâ abbreviato-triangulari, peculiariter diagonaliter undato-costatâ, latere postico abruptè plano-angulato, interstitiis areæ cancellatis, antico compressè angulato-acuminato; albidâ, epidermide fulvâ indutâ.*

THE MADAGASCAR DONAX. Shell shortly triangular, peculiarly diagonally wave-ribbed, posterior side abruptly flatly angled, interstices of the area cancellated, anterior compressly angularly acuminated; whitish, covered with a fulvous epidermis.

WOOD, Index Testaceologicus, Supp. *Donax*, fig. 3.
Donax Keyi, A. Adams.

Hab. Madagascar.

Peculiarly characterized by a sculpture of diagonally cross-waved ribs.

Species 51. (Mus. Cuming.)

DONAX PETALLINA. *Don. testâ subangustè oblongâ, tenui, semipellucidâ, subæquilaterali, minutissimè radiatim striatâ, pellucido-albâ, purpurascente latè biradiatâ; lateribus rotundatis, subæqualibus, postico latiore; umbonibus parvis, subcentralibus.*

THE LITTLE PETAL DONAX. Shell rather narrowly oblong, thin, semitransparent, nearly equilateral, very minutely radiately striated, transparent-white, broadly two-rayed with light purple; sides rounded, nearly equal, posterior the broader; umboes small, nearly central.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. ——?

A very delicate subtransparent shell, marked with two broad rays of light purple, with the sides nearly equal.

Species 52. (Mus. Cuming.)

DONAX ÆNEA. *Don. testâ angustè oblongâ, striis sub lente minutissimè decussatâ, sordidè albâ, obscurè biradiatâ, eximiè iridescente; latere antico acuminato-rotundato, postico obtusè declivi-angulato.*

THE BRASS DONAX. Shell narrowly oblong, beneath the lens very minutely decussated with striæ; dirty-white, faintly two-rayed, delicately iridescent; anterior side acuminately rounded, posterior obtusely slantingly angled.

MORCH, Kierulf Cat.; Deshayes, Pro. Zool. Soc. March, 1854.

Hab. ——?

A minute dull white shell, apparently smooth, but decussated beneath the lens with fine striæ and delicately iridescent.

Species 53. (Mus. Cuming.)

DONAX INCARNATA. *Don. testâ latissimè trigonâ, solidiusculâ, compressâ, obscurè radiatim sulcatâ, posticè conspicuè undato-corrugatâ, interstitiis cancellatis; lutescente-incarnatâ; latere antico subacuminato, postico brevissimo, obtusè angulato.*

THE FLESH-TINTED DONAX. Shell very broadly triangular, rather solid, compressed, obscurely radiately grooved, posteriorly conspicuously wave-wrinkled, with the interstices cancellated; yellowish flesh-tinged; anterior side subacuminated, posterior very short, obtusely angled.

CHEMNITZ, Conch. Cab. vol. vi. p. 265. pl. 26. f. 259.

Hab. ——?

Of a particularly broadly angled form, the umboes seeming unusually elevated, with the obtuse posterior angle strongly diagonally wave-wrinkled.

Species 54. (Mus. Cuming.)

DONAX DYSONI. *Don. testâ trigono-cuneatâ, minutissimè decussatim striatâ, posticè fortiter concentricè liratâ, interstitiis cancellatis; albidâ, ad umbones lividopurpurascente radiatâ; latere antico rotundato, postico brevissimo, vix angulato.*

DYSON'S DONAX. Shell triangularly wedge-shaped, very minutely decussately striated, posteriorly strongly concentrically ridged, with the interstices cancellated; whitish, rayed at the umboes with livid purple; anterior side rounded, posterior very short, scarcely angled.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. Indian Seas.

Allied in general plan of sculpture to the preceding

species, in that the well-defined posterior ridges are not wrinkled.

Species 55. (Mus. Cuming.)

DONAX PAXILLUS. *Don. testâ elongato-cuneatâ, lævigatâ, obscurè radiatim sulcatâ; albidâ, livido-tinctâ; latere antico acuminato-rotundato, postico brevissimo, latiusculo, abruptè angulato-truncato, ad angulum crenulato; areâ subtilissimè granoso-decussatâ.*

THE LITTLE PEG DONAX. Shell elongately wedge-shaped, smooth, obscurely radiately grooved; whitish, livid stained; anterior side acuminately rounded, posterior very short, rather wide, abruptly angularly truncated, crenulated at the angle; area finely granosely decussated.

Hab. Ceylon.

Of a somewhat sharply elongated wedge-shape, crenulated on the abrupt posterior angle.

Species 56. (Mus. Cuming.)

DONAX SEMISULCATA. *Don. testâ abbreviato-cuneiformi, solidiusculâ, lutescente, anticè lævigatâ, politâ, posticè lirato-clathratâ; latere antico acuminato-rotundato, postico brevissimo abruptè concavo-truncato, acutè crenato-angulato; areâ nitidissimè granato-liratâ.*

THE HALF-GROOVED DONAX. Shell shortly wedge-shaped, rather solid, yellowish, anteriorly smooth, polished, posteriorly conspicuously ridge-latticed; anterior side acuminately rounded, posterior very short, abruptly concavely truncated, sharply crenately angled; area very neatly grain-ridged.

HANLEY, Pro. Zool. Soc. 1843, p. 5.

Hab. East Africa.

Of a sharply angled wedge-form, beautifully lattice-sculptured on the posterior side.

Species 57. (Mus. Cuming.)

DONAX CLATHRATA. *Don. testâ oblongo-cuneatâ, gibbosulâ, albidâ, undique pulcherrimè granoso-clathratâ; latere antico rotundato, postico brevissimo, latiusculo, abruptè truncato, ad angulum bicarinato.*

THE LATTICED DONAX. Shell oblong, wedge-shaped, rather gibbous, whitish, beautifully grain-latticed throughout; anterior side rounded, posterior very short, rather broad, abruptly truncated, two-keeled at the angle.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. —— ?

Delicately grain-latticed throughout, with two characteristic though slight keels on the posterior angles.

Species 58. (Mus. Cuming.)

DONAX ACUMINATA. *Don. testâ acutè angulato-cuneatâ, medio gibbosiusculâ, densè radiatim sulcatâ; albidâ, latere antico acuminato, postico acutè declivi-angulato, latiusculo.*

THE ACUMINATED DONAX. Shell sharply angularly wedge-shaped, rather gibbous in the middle, densely radiately grooved; whitish, anterior side acuminated, posterior sharply slantingly angled, rather broad.

DESHAYES, Pro. Zool. Soc. March, 1854.

Hab. —— ?

Chiefly distinguished by the anterior side being more than usually attenuated and acuminated.

Species 59. (Mus. Cuming.)

DONAX NUCULOIDES. *Don. testâ subquadrato-ovatâ, plano-convexâ, solidiusculâ; albidâ, epidermide corneâ cinereâ nitente indutâ; lateribus rotundatis, postico breviore, vix truncato.*

THE NUCULA-LIKE DONAX. Shell somewhat squarely ovate, flatly convex, rather solid; white, covered with a shining horny-ash epidermis; sides rounded, posterior the shorter, scarcely truncated.

Hab. Bodegas, California; Hinds.

Of very distinct typical character from any other species of the genus, flatly convex, covered with a shining horny epidermis, and having somewhat of the external aspect of *Nucula*.

60

61

62

63

64

65

66

67a

67

68

Sowerby del. et lith.

Vincent Brooks Imp.

DONAX.

PLATE IX.

Species 60. (Mus. Hanley.)

DONAX SAXULUM. *Don. testâ suboblongo-trigonâ, compressâ, solidiusculâ, radiatim lirato-striatâ, albidâ, nitente, versus marginem epidermide corneâ stramineâ indutâ, latere postico declivi-angulato, antico longiore, rotundato.*

THE LITTLE STONE DONAX. Shell somewhat oblong triangular, compressed, rather solid, radiately ridge-striated, whitish, shining, covered towards the margin with a straw-coloured horny epidermis, posterior side slantingly angular, interior longer, rounded.

Hab. —— ?

A whitish shining shell, although rayed throughout with ridge-like striæ, rather compressed, with the posterior side more angularly slanting than usual.

Species 61. (Mus. Hanley.)

DONAX INCERATA. *Don. testâ obliquè trigonâ, subcurvatâ, concentricè leviter striatâ, striis radiantibus obsoletis decussatâ, subpellucido-albâ, carneo-roseo tinctâ, latere postico abruptè rotundato, antico acuminato-rotundato.*

THE WAXEN DONAX. Shell obliquely triangular, slightly curved, concentrically faintly striated, decussated with obsolete radiating striæ, semitransparent white, tinged with flesh-rose, posterior side abruptly rounded, anterior acuminately rounded.

Hab. —— ?

This odd valve, from Mr. Hanley's collection, is not to be identified with any previously described species of the genus. It is of a subtransparent shining white texture, delicately tinged with flesh-rose, obsoletely decussately striated, and is equally characteristic in outline.

Species 62. (Mus. Cuming.)

DONAX OBSCURA. *Don. testâ trigono-ovatâ, subcompressâ, concentricè minutissimè densè striatâ, calcareo-albâ, latere postico truncato-rotundato, antico longiore, rotundato.*

THE OBSCURE DONAX. Shell triangularly ovate, rather compressed, concentrically very minutely closely striated, chalk-white, posterior side truncately rounded, anterior rather longer, rounded.

Hab. —— ?

An opake-white species, very closely minutely concentrically striated, with the side not particularly unequal.

Fig. 63. (Mus. Hanley.)

This shell, from Mr. Hanley's collection, named *D. Panamensis*, Philippi, in the author's own handwriting, proves to be a variety of *D. Cayennensis*.

Species 64. (Mus. Hanley.)

DONAX META. *Don. testâ abbreviato-conicâ, solidiusculâ, radiatim lirato-striatâ, lutescente-albâ, intus vitellinâ, latere postico lato, tumidiusculo, acutè angulato-truncato, areâ posticâ eximiè corrugatâ et striatâ, latere antico subcontracto, acuminato-rotundato.*

THE CONE DONAX. Shell shortly triangular, rather solid, radiately ridge-striated, yellowish-white, interior yolk-yellow, posterior side broad and rather swollen, sharply angularly truncated, the posterior area delicately wrinkled and striated, anterior side rather contracted, acuminately rounded.

Hab. —— ?

Of this species we have but an odd valve, broadly angularly truncated and a little swollen on the posterior side, the anterior being rather contracted and acuminately rounded.

Species 65. (Mus. Hanley.)

DONAX INTRORADIATA. *Don. testâ trigono-ovatâ, radiatim densè sulcato-striatâ, griseo-violaceâ, pallidè violaceo biradiatâ, radiis intus intensè violaceis, latere postico brevissimo, lato, gibboso, ad angulum funiculato, ad aream densissimè corrugato et striato, latere antico gradatim compresso-acuminato.*

THE INWARDLY-RAYED DONAX. Shell triangularly ovate, radiately closely groove-striated, greyish-violet, marked with two faint violet rays, the rays deep violet in the interior, posterior side very short, broad, gibbous, raised into a cord at the angle, very closely wrinkled and striated on the area, anterior side gradually compressly acuminated.

Hab. —— ?

A characteristic species, painted with two deep violet internal rays faintly indicated without, broadly gibbous

on the posterior side, with the edge raised into a cord, and compressly acuminated anteriorly.

Species 66. (Mus. Hanley.)

DONAX VELLICATA. *Don. testâ subelongato-oblongâ, radiatim densè sulcato-striatâ, griseo-albâ, ad umbones purpurascente, albo minutè biradiatâ, latere postico abruptè truncato, ad marginem contracto, latere antico rotundato.*

THE NIPPED DONAX. Shell rather elongately oblong, radiately closely groove-striated, greyish-white, purplish at the umboes, and minutely two-rayed with white, posterior side abruptly truncated, contracted at the margin, anterior side rounded.

Hab. —— ?

A rather solid elongately oblong species, somewhat bluntly slopingly truncated at the posterior end, which towards the ventral margin is peculiarly contracted or pinched.

Species 67. (Mus. Hanley.)

DONAX SPICULUM. *Don. testâ lanceolato-oblongâ, angustâ, radiatim tenuiter sulcato-striatâ, carneo-fulvescente, epidermide corneâ flavicante juxta marginem indutâ, latere postico brevissimo, obtusè angulato, antico lanceolato-rotundato.*

THE LITTLE BOLT DONAX. Shell lanceolately oblong, narrow, radiately finely groove-striated, flesh-tinged fulvous, covered next the margin with a yellowish horny epidermis, posterior side very short, obtusely angled, anterior lanceolately rounded.

Hab. —— ?

Of this species, also from Mr. Hanley's collection, there is but a single valve. It is of a peculiarly lanceolate form, of a very short abrupt growth posteriorly.

Species 68. (Mus. Hanley.)

DONAX BITINCTA. *Don. testâ trigono-oblongâ, subcurvatâ, versus marginem compressâ, radiatim tenuiter sulcato-striatâ, albidâ, radio lato roseo-purpurascente pictâ, latere postico declivi-angulato, areâ subconcavâ, medio elevatâ, roseo-purpurascente, latere antico compresso-rotundato.*

THE DOUBLE-STAINED DONAX. Shell triangularly oblong, slightly curved, compressed towards the margin, radiately finely groove-striated, whitish, painted with a broad rose-purple ray, posterior side slopingly angled, area subconcave, raised in the middle, rose-purple, anterior side compressly rounded.

Hab. —— ?

Of an oblong curved form, with the posterior area gently angularly sloping, rather concavely raised, and stained in a characteristic manner with rose-purple, of which colour there is a single broad ray in the middle of each valve.

DONAX.

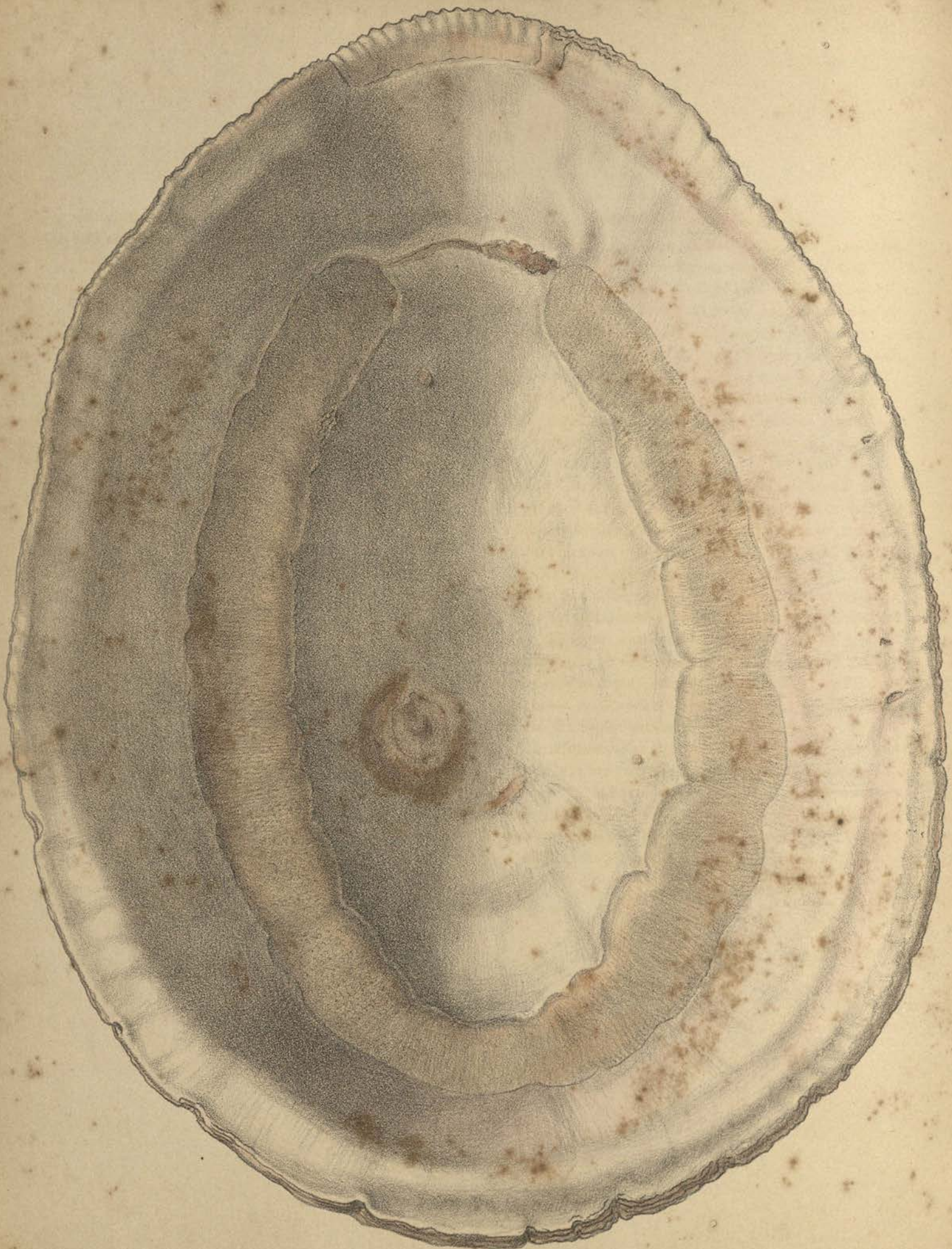
	Plate	Species
ænea, *Morch.*	VIII.	52
acuminata, *Deshayes*	VIII.	58
acutangula, *Deshayes*	VI.	33
anatinus, *Lam.*	IV.	19
asper, *Hanley*	II.	12
assimilis, *Hanley*	II.	10
bella, *Deshayes*	VI.	41
bicolor, *Lam.*	V.	28
bitincta, *Reeve*	IX.	68
Californica, *Conrad*	VI.	40
carinata, *Hanley*	II.	11
Cayennensis, *Lam.*	IV.	22
clathrata, *Deshayes*	VIII.	57
columbella, *Lam.*	III.	14
complanatus, Mont.	VI.	42
compressa, *Lam.*	II.	8
Conradi, *Deshayes*	V.	29
contusa, *Reeve*	IV.	24
culter, *Hanley*	IV.	21
cuneata, *Linn.*	III.	15
deltoides, *Lam.*	I.	4
denticulata, *Linn.*	VII.	48
dentifera, *Hanley*	I.	2
Dysoni, *Deshayes*	VIII.	54
epimerdia, Lam.	I.	4
faba, Chemn.	V.	26
fabagella, Lam.	IV.	25
gracilis, *Hanley*	VI.	38
granifera, *Deshayes*	VII.	43
Hanleyana, *Philippi*	II.	6
incarnata, *Chemn.*	VIII.	53
incrata, *Reeve*	IX.	61
introradiata, *Reeve*	IX.	65
Keyi, Adams	VIII.	50
Lamarckii, *Deshayes*	V.	27
lævigata, *Deshayes*	V.	31
longa, Philippi	VI.	42
lubrica, *Hanley*	VII.	46
lunularis, *Philippi*	IV.	20
Madagascariensis, *Wood*	VIII.	50
meta, *Reeve*	IX.	64
navicula, *Hanley*	IV.	18
nitida, *Deshayes*	VI.	34
Nuculoides, *Reeve*	VIII.	59
obesa, *D'Orb.*	VII.	49
obesula, *Deshayes*	V.	30
obscura, *Reeve*	IX.	62
ovalina, *Deshayes*	III.	17
Owenii, *Gray*	VI.	37
paxillus, *Reeve*	VIII.	55
petallina, *Deshayes*	VIII.	51
polita, *Poli*	VI.	42
pubescens, Linn.	I.	1
pulchella, *Hanley*	VI.	35
punctato-striata, *Hanley*	III.	16
radians, *Lam.*	V.	26
ringens, Lam.	I.	5
ruber, Turton	IV.	19
rugosa, *Linn.*	II.	9
saxulum, *Reeve*	IX.	60
scapellum, *Gray*	VI.	39
scortum, *Linn.*	I.	1
semistriata, *Poli*	IV.	25
semisulcata, *Hanley*	VIII.	56
serra, *Chemn.*	I.	5
sordida, *Reeve*	V.	32
spiculum, *Reeve*	IX.	67
Ticaonica, *Hanley*	III.	13
transversa, *Sow.*	VI.	36
trifasciata, *Reeve*	II.	7
trunculus, Auct.	IV.	19
trunculus, *Linn.*	IV.	23
variabilis, *Say*	VII.	47
variegata, *Reeve*	VII.	45
vellicata, *Reeve*	IX.	66
venusta, *Poli*	VII.	44

MONOGRAPH

OF THE GENUS

P A T E L L A.

"At distance viewed, it seems to lie
On its rough bed so carelessly,
That 'twould an infant hand obey,
Stretched forth to seize it in his play.
But let that infant's hand draw near,
It shrinks with quick instinctive fear,
And clings as close, as though the stone
It rests upon, and it, were one;
And should the strongest arm endeavour
The Limpet from its rock to sever,
'Tis seen its loved support to clasp,
With such tenacity of grasp,
We wonder that such strength should dwell
In such a small and simple shell."—*Wordsworth.*



Bowerbank del et lith.

Vincent Brooks Imp

PATELLA.

PLATE I.

Genus PATELLA, *Linnæus.*

Testa ovata, plus minus convexa, patellæformi, non spiralis, apice interdum centrali, plerumque plus minus anticè inclinato, sæpissimè radiatim costata vel lirata, interdum squamata, margine plerumque crenulata; impressio muscularis elliptica, anticè interrupta.

Shell ovate or rounded, more or less convex, dish-shaped, not spiral, apex sometimes central, generally more or less inclined anteriorly, mostly radiately ribbed or ridged, sometimes scaly, generally crenulated at the margin; muscular impression elliptical, interrupted anteriorly.

The Limpets, properly so called, have been collected together under the generic title of *Patella*, from the resemblance of their shell to the form of a dish of that name, formerly used by the Latins for carrying meat in their sacrifices. In structure it is the most simple of all shells, being an unconvoluted shield, covering the soft parts of the animal, more or less raised in convexity, not spiral, inclining to an apex, rarely more than superficially developed, but sometimes bent over anteriorly into a minute hook. From this apex radiate striæ, ridges, or ribs, which are sometimes scaled, and have the interstices sometimes wrought into lattice work by concentric ridges. It is only very rarely, however, that the shell is so sculptured, the ribs or ridges being for the most part smooth, though presenting abundant characteristic varieties of form and distribution. The painting of the *Patellæ* is also exceedingly varied; the prevailing pattern consisting of rays, modified by various causes to a degree which renders the different states of a species often extremely difficult of identification.

The *Patellæ* inhabit all latitudes, ranging from the Equator to the Arctic Seas, where the *P. testudinalis* has been found by Sir Edward Belcher in Wellington Channel, the most northern limit of animal life; and they are everywhere abundant in their kind. Some of the finest species are found about the Cape of Good Hope.

Species 1. (Mus. Cuming.)

PATELLA MEXICANA. *Pat. testâ oblongo-ovatâ, anticè attenuatâ, medio subacutè convexâ, versus marginem planatâ, radiatim costatâ, costis subcompressis, rudibus, irregularibus, plus minus obsoletis, liris intermediis scabrosis in testâ juniore; luteo-albâ, hic illic pallidissimè ferrugineo-tinctâ, intus pallidissimè furrugineo tinctâ.*

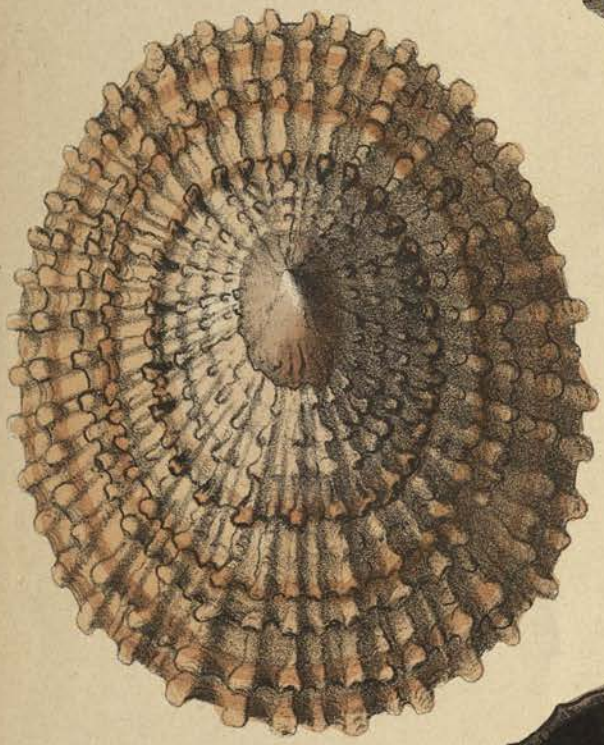
THE MEXICAN LIMPET. Shell oblong-ovate, attenuated in front, rather sharply convex in the middle, flattened towards the margin, radiately ribbed, ribs rather compressed, rude, irregular, more or less obsolete, with intermediate scabrous ridges in the young shell; yellowish-white, here and there very faintly rust-tinged, and very faintly rust-tinged within.

BRODERIP and SOWERBY, Zool. Journ. vol. iv. p. 369.

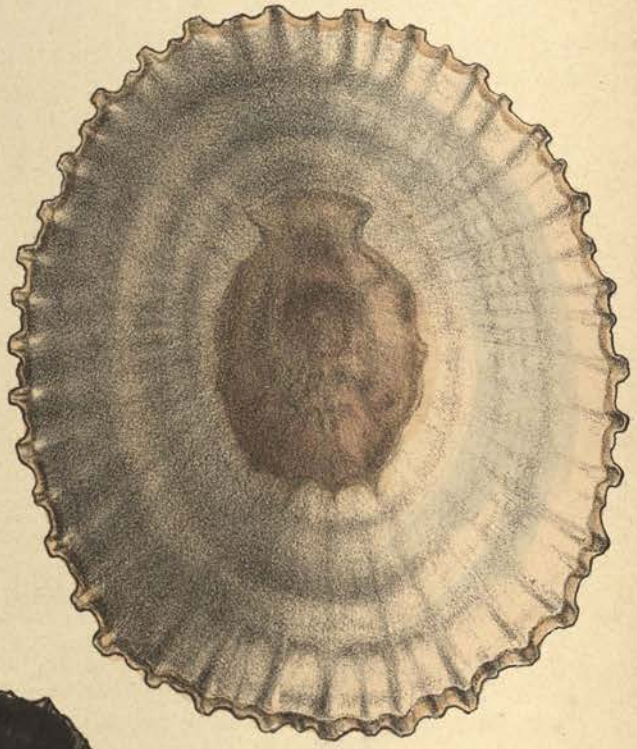
Hab. Acapulco; Cuming. Mazatlan; Carpenter.

This fine species, the largest, in an eminent degree, of the genus, is of a sharply convex form, flattened towards the margin, distinguished exteriorly by a series of irregular radiating ribs, which soon become obsolete as the shell advances in growth. It is, within and without, of a uniform white, tinged with rust.

2a



3a



3b

2b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE II.

Species 2. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA OCULUS. *Pat. testâ suborbiculari-ovatâ, convexiusculâ, radiatim costatâ et striatâ, costis in testâ juniore crenulatis, duodecim latioribus majoribus; lutescente, nigro variegatâ, coloribus ætate evanescentibus, intus prope marginem intensè nigro-brunneâ, deinde æneo-castaneâ, deinde opaco-cærulescente, nucleo fuscescente-vitellino.*

THE EYE LIMPET. Shell somewhat orbicularly ovate, moderately convex, radiately ribbed and striated, ribs in the young shell crenulated, twelve broader and larger; yellowish, variegated with black, the colours fading with age, interior deep black-brown near the margin, then bronze-chestnut, then light opake-blue, with a brownish-yelk nucleus.

BORN, Mus. Test. Vindobonensis, p. 418.

Hab. Cape of Good Hope.

The rich eye-like colouring of the interior of this species is always a characteristic feature.

Species 3. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA NIGRISQUAMATA. *Pat. testâ ovatâ, erecto-conicâ, altâ, radiatim costatâ, costis ad quadraginta, fortiter nodoso-squamatis; flavicante, squamis versus apicem hic illic nigris, intus flavicante-albâ, nucleo rufescente-fusco, centro lacteo.*

THE BLACK-SCALED LIMPET. Shell ovate, erectly conical, high, radiately ribbed, ribs about forty, strongly nodosely scaled; yellowish, scales towards the apex here and there black, interior yellowish-white, with a reddish-brown nucleus, with the centre milk-white.

Hab. Australia.

A very characteristic elevately conical species, sculptured with about forty prominently nodule-scaled ribs, which are rather irregular in their development. The ground-colour of the shell is a deep opake-yellow, and the nodules towards the apex more especially in the young are here and there deep cinder-black.

October, 1854.

4a

5a

5b

4b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE III.

Species 4. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA GRANATINA. *Pat. testâ ovatâ, suboctagonâ, anticè coarctatâ, subelevatâ, radiatim fortiter costatâ, costis numerosis, subcrenulatis, octo plerumque majoribus, subacutis; cærulescente-albâ, olivaceo-nigro profusè maculatâ, intus nucleo amplo purpureo-rufo.*

THE GARNET LIMPET. Shell ovate, suboctagonal, contracted in front, rather raised, radiately strongly ribbed, ribs numerous, subcrenulated, eight generally larger, rather sharp; bluish-white, profusely spotted with olive-black, interior with a large deep purple-red nucleus.

LINNÆUS, Syst. Nat. (12th edit.) p. 1258.

Hab. Cape of Good Hope.

Distinguished by its mottled olive-black spots on the outside, and deep purple burnt-red nucleus inside. There is also, in young specimens, an appearance of crenulation both on the ribs and in the interstices. With age the ribs become sharper and the crenulation more obscure.

Species 5. (Fig. *a*, *b*, Mus. Cuming.)

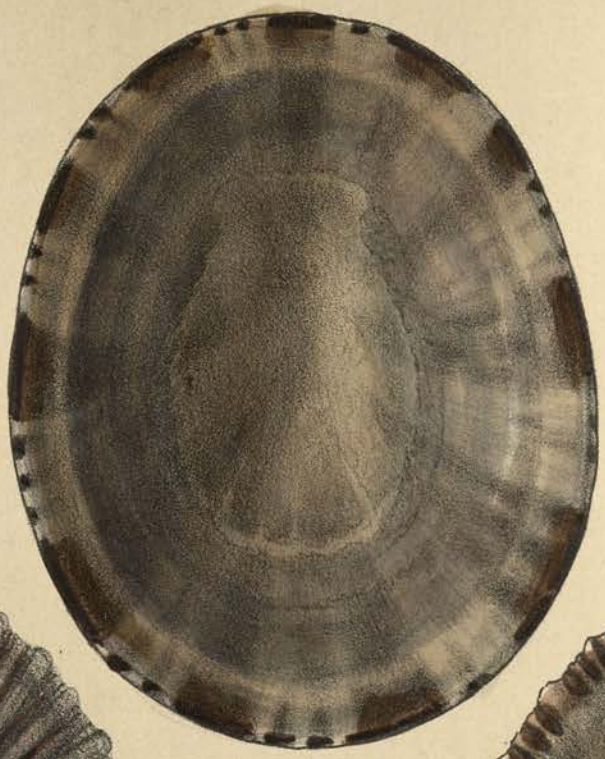
PATELLA PLUMBEA. *Pat. testâ suboblongo-ovatâ, ad latera anticè coarctatâ, convexiusculâ, radiatim costatâ, costis numerosis, parvis, irregularibus, striis concentricis crenulatis; nigricante-plumbeâ, costis saturatioribus, intus pallidè cærulescente-plumbeâ, nucleo amplo, fuscescente-vitellino.*

THE LEAD LIMPET. Shell somewhat oblong-ovate, contracted anteriorly at the sides, rather convex, radiately ribbed, ribs numerous, small, irregular, crenulated with concentric striæ; blackish lead-colour, ribs darker, interior pale bluish-lead, nucleus larger, brownish-yelk.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 530.

Hab. Senegal.

Of a uniform dark lead-colour, rayed with small almost superficial crenulated ribs, and having a conspicuous opake-brownish yelk nucleus in the interior.



6a

7a

7b

6b

Sowerby del et lith.

Vincent Brooks Imp.

PATELLA.

PLATE IV.

Species 6. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA TESTUDINARIA. *Pat. testâ ovato-rotundatâ, crassiusculâ, semipellucidâ, apice anticè subinclinato, striis radiatis et concentricis decussatâ; lutescente, intensè purpureo-rufo reticulato-radiatâ et maculatâ, intus argenteâ, ad marginem purpureo maculatâ.*

THE TORTOISE-SHELL LIMPET. Shell ovately rounded, rather thick, semipellucid, apex rather inclined anteriorly, decussated with radiating and concentric striæ; yellowish, net-rayed and blotched with deep purple-red, interior silvery, blotched with purple at the margin.

LINNÆUS, Syst. Nat. (12th edit.) p. 1260.

Lottia testudinaria, Sowerby.

Hab. Philippine Islands; Cuming.

Though a solid shell, this species is comparatively of transparent substance. The purple-red painting is deposited in a peculiar smeary style, always uniform and characteristic. The interior is lined with a delicate silvery nacre, into which the dark red rays blend from the margin.

Species 7. (Fig. *a*, *b*, Mus. Cuming.)

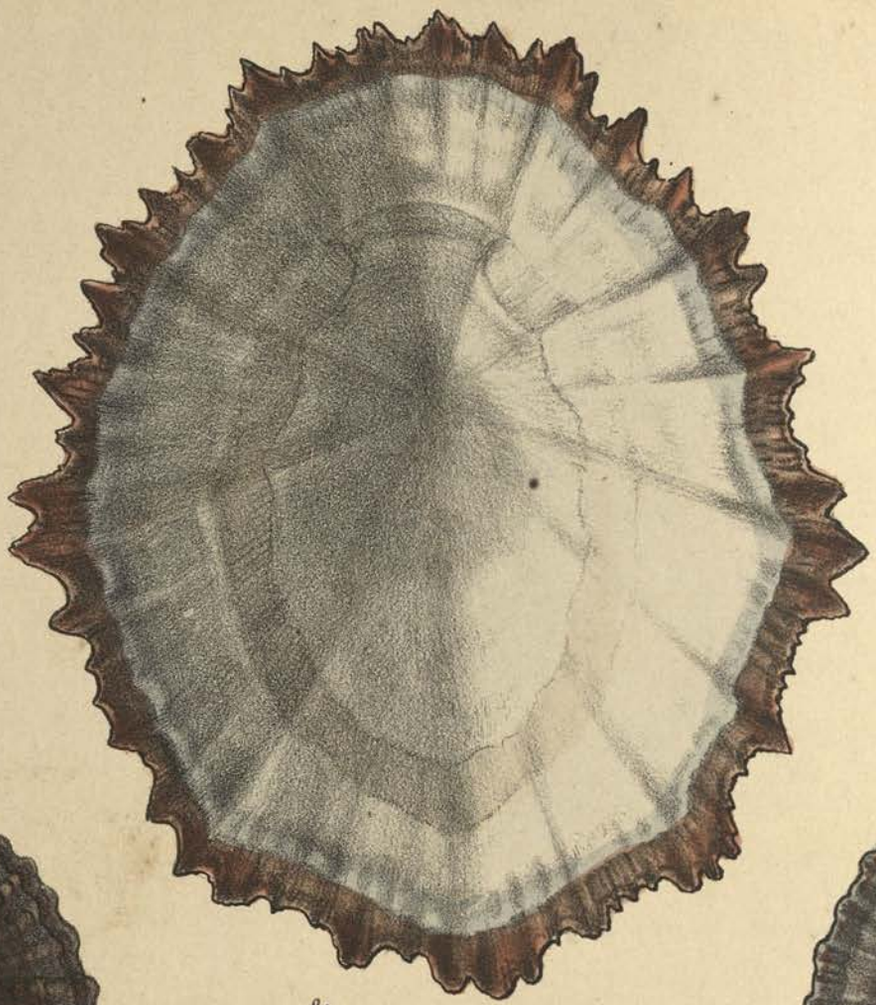
PATELLA ZEBRA. *Pat. testâ ovatâ, acutè convexâ, subaltâ, apice prominente, anticè subinclinato, radiatim rudè nodoso-costatâ, costis ætate evanescentibus; griseo-albâ, nigro-fusco radiatim strigatâ, intus albâ, vitello tinctâ, margine maculis nigro-fuscis binis conspicuè picto.*

THE ZEBRA LIMPET. Shell ovate, sharply convex, rather high, apex prominent, somewhat inclined anteriorly, radiately roughly nodosely ribbed, ribs fading with age; greyish-white, radiately streaked with black-brown, interior white, tinged with yelk-yellow, margin conspicuously painted with narrow black-brown blotches in pairs.

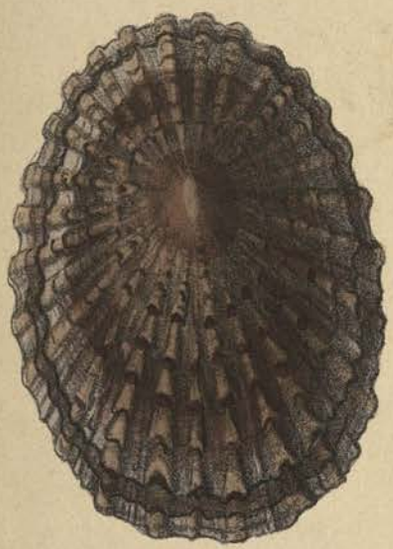
Patella rustica, Menke (not of Linnæus).

Hab. Swan River.

A very characteristic species, strongly rudely nodule-ribbed in the young state, the ribs being about two-and-twenty in number, but with age they become faint. The shell is of a greyish-white, vividly rayed with black-brown streaks, and the inner margin is conspicuously and neatly painted with narrow blotches of the same colour in pairs.

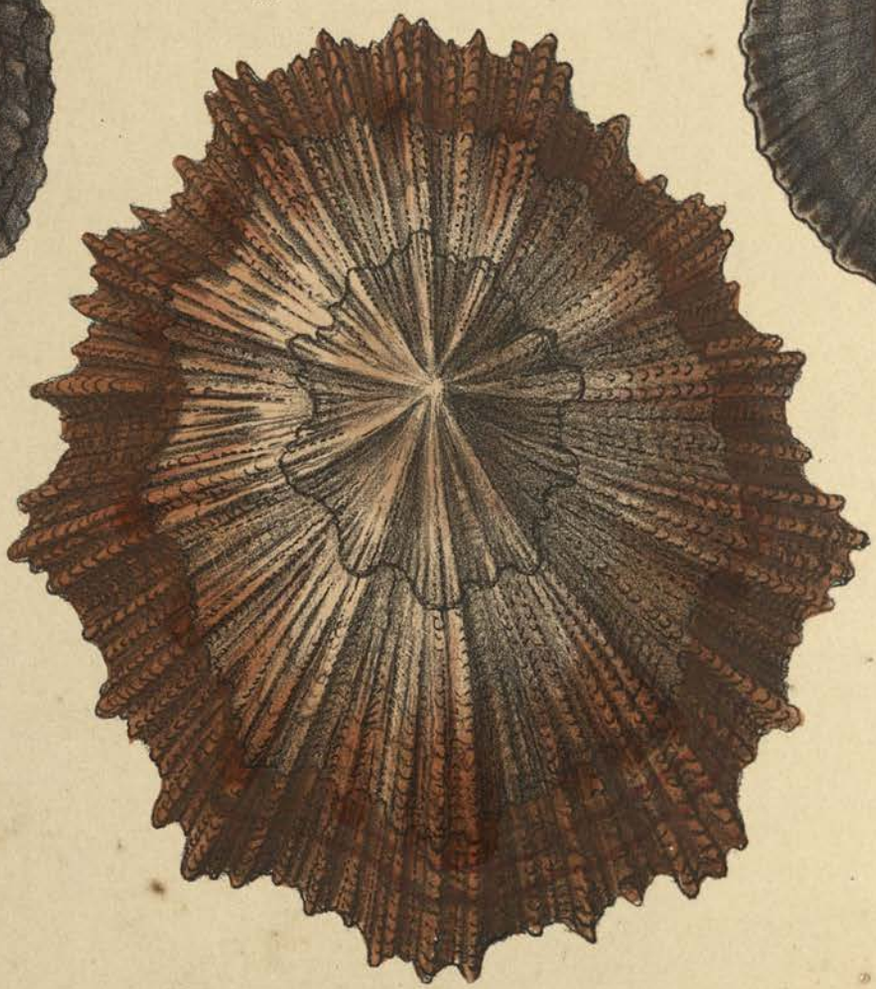


8a



9a

9b



8b

Sowerby del et lith.

Vincent Brooks Imp

PATELLA.

PLATE V.

Species 8. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA RUSTICA. *Pat. testâ ovatâ, indistinctè octagonâ, convexiusculâ, solidâ, acutè rudè irregulariter costatâ, costis versus marginem squamatis; ferrugineo-rufâ, intus lacteâ, margine acutè irregulariter squamato, pallidè rufescente.*

THE RUSTIC LIMPET. Shell ovate, indistinctly octagonal, rather convex, solid, sharply rudely irregularly ribbed, ribs scaled towards the margin; rust-red, milk-white within, margin sharply irregularly squamate, pale reddish.

LINNÆUS, Syst. Nat. (12th edit.) p. 1261.

Hab. Cape of Good Hope.

A bold roughly ribbed species, the ribs being bluntly scaled towards the margin, of a peculiar rust-red colour, milk-white in the interior.

Species 9. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA ÆNEA. *Pat. testâ suboblongo-ovatâ, altâ, apice anticè inclinato, radiatim squamato-costatâ, squamis brevissimis, subdistantibus; intensè sordidè fuscâ, intus æneo-castaneâ.*

THE BRONZE LIMPET. Shell somewhat oblong-ovate, high, apex inclined anteriorly, radiately squamately ribbed, scales very short, rather distant; dark dull brown, interior bronze-chestnut.

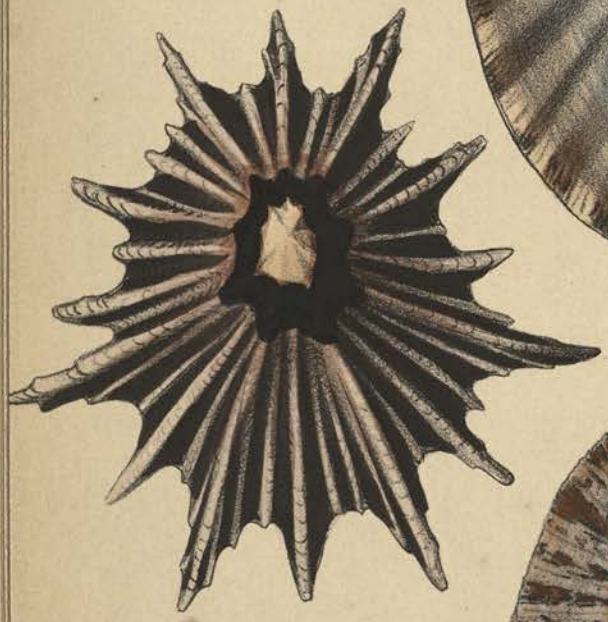
MARTYN, Universal Conchology, vol. i. pl. 17.

Hab. Straits of Magellan; Cuming.

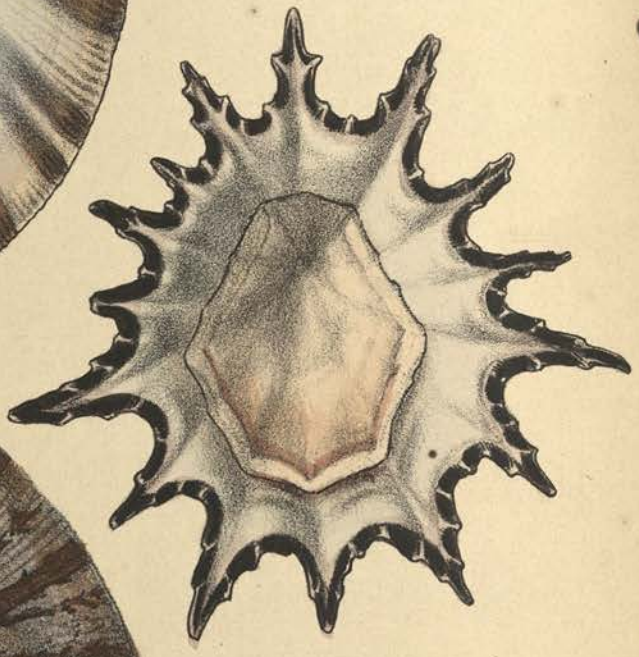
An elevately oblong-conical species, of a dull brown, rayed with bluntly scaled ribs, the scales being rather distant. The interior is chestnut-stained and of iridescent bronze.

October, 1854.

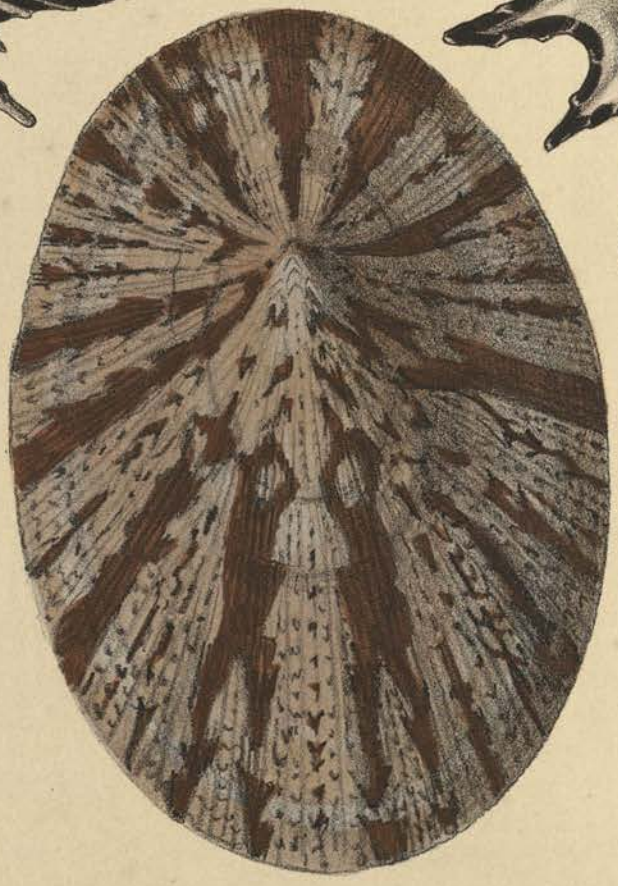
10 a



11 a



11 b



10 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE VI.

Species 10. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA SANGUINANS. *Pat. testâ oblongo-ovatâ, convexiusculâ, apice subantico, striis concentricis lirisque parvis superficiariis decussatâ; albidâ, hic illic peculiariter rugosâ, strigis sanguineo-rufis promiscuè fluentibus tinctâ, superficie rugosâ rufo-punctatâ, intus semipellucido-albâ, conspicuè rufo-radiatâ.*

THE BLEEDING LIMPET. Shell oblong-ovate, rather convex, apex rather anterior, decussated with concentric striæ and small superficial ridges; whitish, here and there peculiarly rough, marked with promiscuously flowing blood-red streaks, rough surface red-dotted, interior semipellucid-white, conspicuously red-rayed.

Hab. Cape Natal, South Africa.

This fine new species is of an oblong-oval form, rather flattish, with the apex situated somewhat anteriorly. It is of a reddish-white ground, painted with promiscuous streaks of red, like blood flowing, and the ground is singularly overlaid here and there with an opake rough coating dotted with red.

Species 11. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA LONGICOSTA. *Pat. testâ ovatâ, anticè subattenuatâ, depresso-convexâ, costis duodecim fortissimis radiatâ, costis paucis minoribus intermediis, omnibus carinatis; ferrugineo-nigrâ, intus cærulescente-albâ, nucleo pallidè vittellino, margine prominentè stellato-squamato, nigro-fimbriato.*

THE LONG-RIBBED LIMPET. Shell ovate, slightly attenuated anteriorly, depressly convex, rayed with twelve very strong ribs, with a few smaller intermediate ribs, all the ribs keeled; rust-black, interior bluish-white, with a pale yelk nucleus, margin prominently stellately scaled, black-rayed.

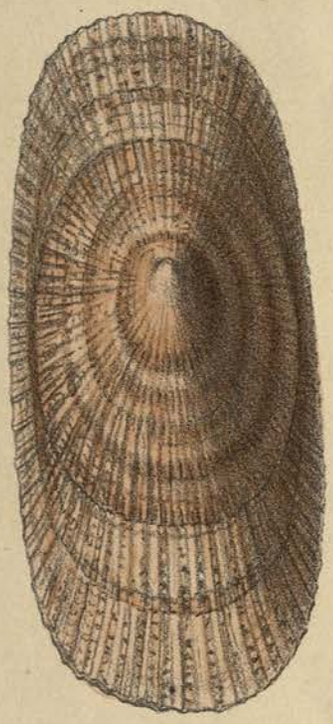
LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 528.

Patella gorgonica, Humphreys, MS.

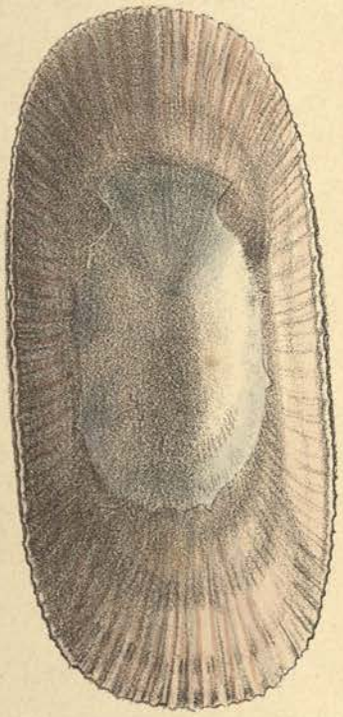
Hab. ——?

This well-known species is chiefly remarkable on account of the very conspicuous star-like development of the ribs.

12a



13a



13b

12b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE VII.

Species 12. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA CONSPICUA. *Pat. testâ ovatâ, anticè vix attenuatâ, convexiusculâ, subpellucidâ, radiatim profusè sulcatâ et striatâ; cærulescente-albâ, cærulescente-nigro promiscuè marmorato-radiatâ, intus subargentea, medio opaco-albâ aut vitellinâ, ad marginem conspicuè radiatâ.*

THE CONSPICUOUS LIMPET. Shell ovate, scarcely contracted in front, slightly convex, subpellucid, radiately profusely grooved and striated; bluish-white, promiscuously mottle-rayed with blue-black, interior slightly silvery, opake-white or yelk in the middle, conspicuously rayed at the margin.

PHILIPPI, Abbild. und Besch. Conch. pl. 3. f. 1.

Hab. Mouth of the Gaboon, West Africa.

The dark rays which characterize this species are of quite a peculiar mottled style of colouring, and, the shell being of a subtransparent texture, they are seen very distinctly through it towards the margin. The inner central nucleus is sometimes yelk-yellow, sometimes marble-white.

Species 13. (Mus. Cuming.)

PATELLA COMPRESSA. *Pat. testâ oblongâ, altâ, ad latera peculiariter compressâ, undiquè radiatim striatâ, striis obscurè remotè granulatis, tenuiculâ; sordidè stramineâ, subpellucidâ, intus medio opaco-albâ.*

THE COMPRESSED LIMPET. Shell oblong, high, peculiarly compressed at the sides, everywhere radiately striated, striæ obscurely remotely granuled, rather thin; dingy straw-colour, subtransparent, interior opake-white at the middle.

LINNÆUS, Syst. Nat. (12th edit.) p. 1261.

Hab. Cape of Good Hope.

A dingy straw-coloured subtransparent shell, rayed throughout with faintly knotted striæ, always singularly compressed at the sides.

14 a

15 a

15 b

14 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE VIII.

Species 14. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA COSTOSO-PLICATA. *Pat. testâ ovatâ, convexiusculâ, crassiusculâ, radiatim fortiter costatâ, costis irregularibus, rudè declivi-tuberculatis, interstitiis rudè clathratis; sordidè eroso-fuscâ, intus albâ, margine fimbriatâ.*

THE RIB-PLEATED LIMPET. Shell ovate, slightly convex, rather thick, radiately strongly ribbed, ribs irregular, rudely slantingly tuberculated, interstices rudely latticed; dingy eroded brown, interior white, fimbriated at the margin.

MARTINI, Conch. Cab. vol. i. p. 91. pl. 8. f. 66.
Patella ferruginea, Gmelin.

Hab. ——?

A solid white shell, rayed with strong slantingly tubercled ribs rudely latticed in the interstices, the whole surface having a rusty eroded aspect.

Species 15. (Fig. *a*, *b*, Mus. Cuming.)

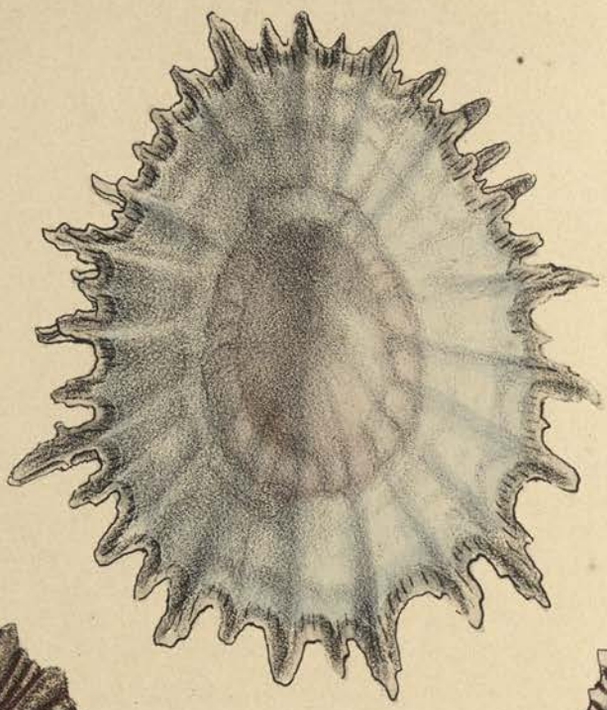
PATELLA CUPREA. *Pat. testâ ovatâ, semiglobosâ, solidiusculâ, radiatim crenulato-liratâ, liris alternis minoribus; cupreo-fuscâ, intus argenteâ, nucleo opaco-albo.*

THE COPPER LIMPET. Shell ovate, semiglobose, rather solid, radiately crenulately ridged, alternate ridges smaller; copper-brown, interior silvery, nucleus opake-white.

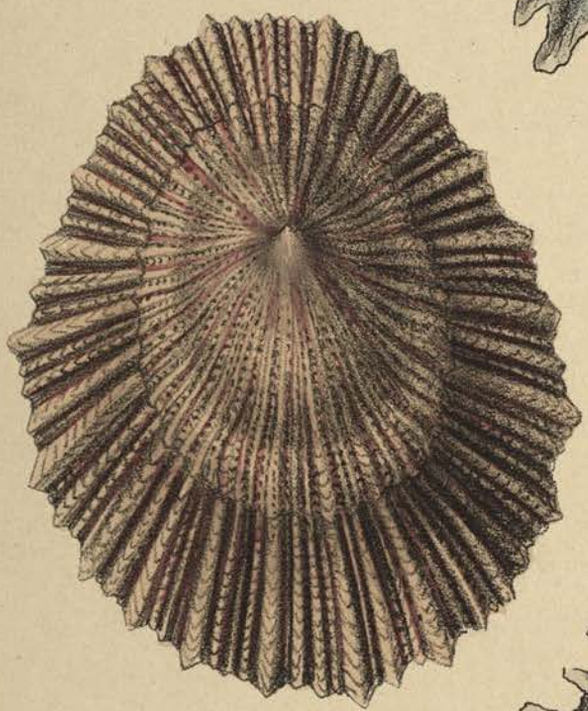
Patella lugubris, Dunker (not of Martyn or Martini).

Hab. Swan River.

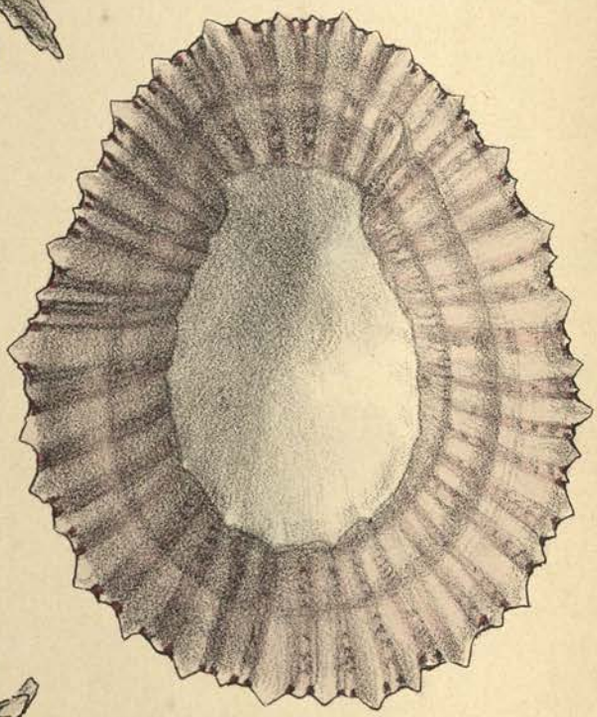
A firm shell, of a semiglobose saucer-like form, rayed with crenuled ridges, alternately smaller, the exterior being of a semitransparent copper-brown white, the interior is bright silvery.



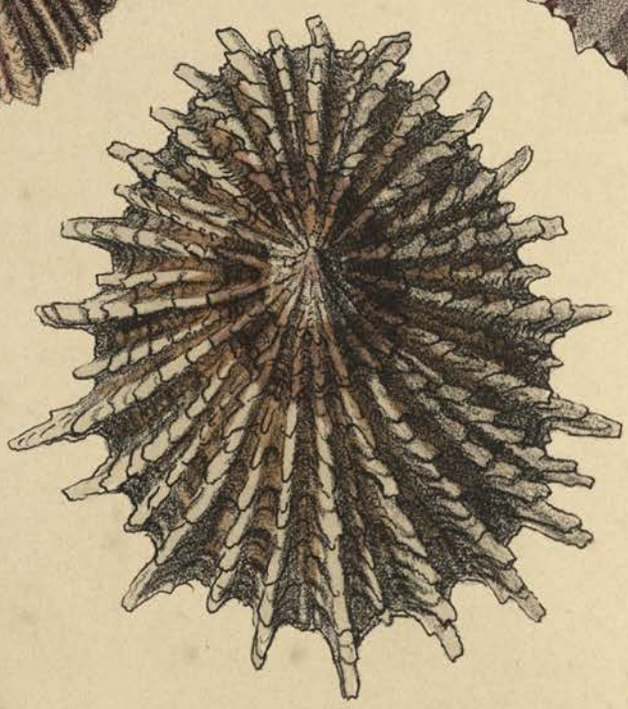
16a



17a



17b



16b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE IX.

Species 16. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA PLICATA. *Pat. testâ ovatâ, anticè subangustiore, parum convexâ, rudè plicato-costatâ, costis squamis cornutis rugosis profusè armatis; griseo-albâ, nigro-cante marmoratâ, intus nitente-albâ, margine acutè elongato-squamatâ.*

THE PLEATED LIMPET. Shell ovate, rather narrower anteriorly, but little convex, rudely plicately ribbed, ribs profusely armed with rough horned scales; greyish-white, marbled with pale black, interior shining white, sharply elongately scaled at the margin.

BORN, Mus. Test. Vindobonensis, pl. 18. f. 1.

Hab. Cape of Good Hope.

Chiefly distinguished by the rude scales of the ribs, which are very irregularly developed and mostly of a prolonged horn-like growth. The colour of the shell is generally an ash-mottled grey.

Species 17. (Mus. Cuming.)

PATELLA UMBELLA. *Pat. testâ ovatâ, anticè subattenuatâ, radiatim costatâ, costis acutis, subrudibus, squamulatis, liris duabus minutis in interstitiis; subpellucido-albâ, minio punctatâ et strigatâ, intus pellucido-albâ, nucleo marmoreo-albo.*

THE LITTLE FAN LIMPET. Shell ovate, subattenuated in front, radiately ribbed, ribs sharp, rather rude, finely scaled, with two minute ridges in the interstices; subtransparent-white, dotted and radiately streaked with vermilion, interior transparent-white, with marble-white nucleus.

GMELIN, Syst. Nat. p. 3706.

Patella sanguinolenta, Gmelin.

Patella miniata, Born.

Hab. Cape of Good Hope.

Of transparent-white texture, rudely squamately ribbed, delicately streaked and spotted in the interstices between the ribs with bright scarlet-vermilion.

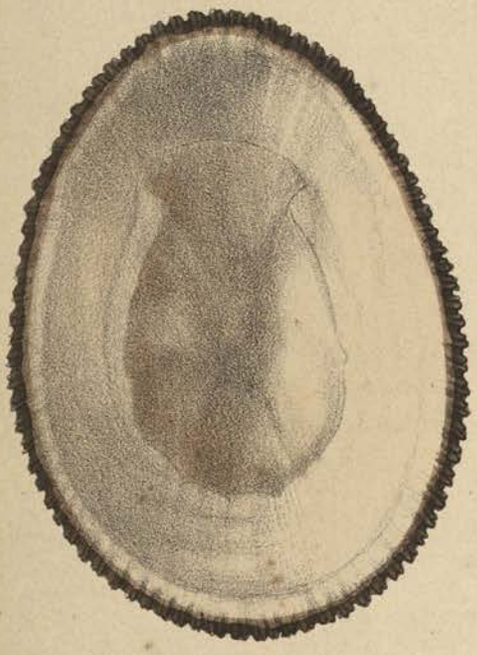
October, 1854.

18a

18b

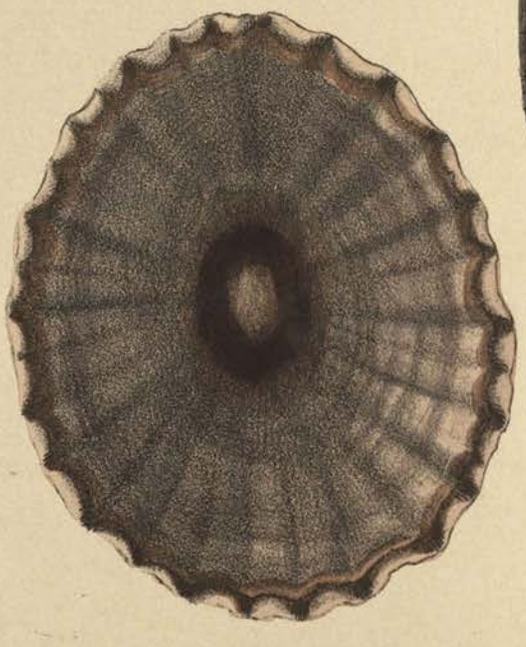
18c

19a



20a

20b



19b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE X.

Species 18. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA VENOSA. *Pat. testâ ovatâ, convexâ, ætate subaltâ, anticè subcontractâ, in testâ juniore radiatim costatâ, costis parvis, subdistantibus, ætate plus minus obsoletis, prope marginem varicosis; pellucido-albâ, castaneo-purpureo irregulariter venoso, venis ad marginem bifurcatis, intus purpureo-castaneo intensè tinctâ.*

THE VEINED LIMPET. Shell ovate, convex, rather high with age, a little contracted in front, in the young shell radiately ribbed, ribs small, rather distant, more or less obsolete with age, varicose near the margin; transparent-white, irregularly veined with chestnut-purple, veins bifurcated at the margin, deeply stained with purple-chestnut in the interior.

Hab. Isle of Chiloe, West Columbia; Cuming.

A transparent shell, gently radiately ribbed in the young state, of transparent-white substance crossed with veins of rich chestnut-purple. The veins are zigzag-biforked at the margin; and the interior of the shell is richly stained with the same colour, bronze-hued.

Species 19. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA MAGELLANICA. *Pat. testâ ovatâ, pyramidali-concavâ, altissimâ, radiatim costatâ, costis latiusculis, rudibus, obsoletè retusè tuberculatis; cinereo-fuscâ, costis saturatioribus, nigro-maculatis, intus cinereo-tinctâ.*

THE MAGELLAN LIMPET. Shell ovate, pyramidally concave, very high, radiately ribbed, ribs rather broad, rude, obsoletely bluntly tubercled; ash-brown, ribs darker, blotched with black, interior ash-tinged.

MARTINI, Conch. Cab. vol. i. pl. 5. f. 40 and 41.

Hab. Straits of Magellan; Cuming.

This species is distinguished chiefly by its lofty pyramidal cup-form, a character not discernible in our figure; and it is rayed throughout with broad obtuse ribs obscurely bluntly tubercled.

Species 20. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA ARGENVILLII. *Pat. testâ suboblongo-ovatâ, anticè paululum contractâ, profundè convexâ, radiatim densè tenuiliratâ, liris planulatis, crenulatis, alternatim majoribus, interstitiis ad marginem bidenticulatis; atrâ, versus apicem plus minus erosâ, intus marmoreo-albâ, ferrugineo-luteo tinctâ, margine atrâ.*

ARGENVILLE'S LIMPET. Shell somewhat oblong-ovate, a little contracted in front, deeply convex, radiately densely finely ridged, ridges flat, crenulated, alternately larger, interstices bidenticulated at the margin; jet-black, more or less eroded towards the apex, interior marble-white, tinged with rusty-yellow, black at the edge.

KRAUSS, Südafrikanische Mollusken, p. 49.

Lepas écaillé, Argenville, Conch. vol. i. p. 504. pl. 3. f. G.

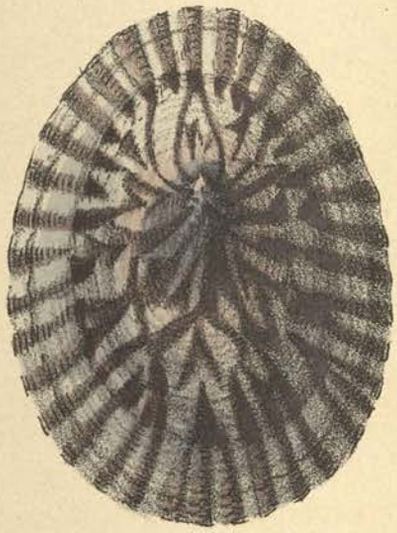
Hab. Table Bay, South Africa.

The sculpture of this shell consists of a number of close-set sharp jet-black ridges inclined to be white in the interstices, but more or less eroded towards the apex. The margin is neatly set round with sharp denticles in pairs.

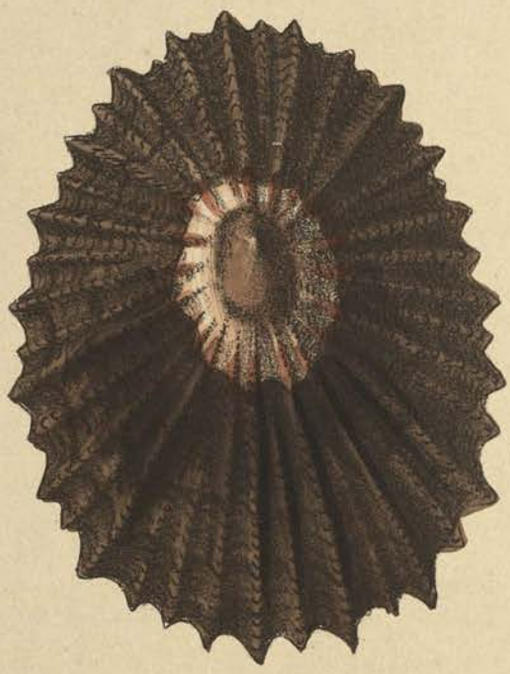
---

21 a

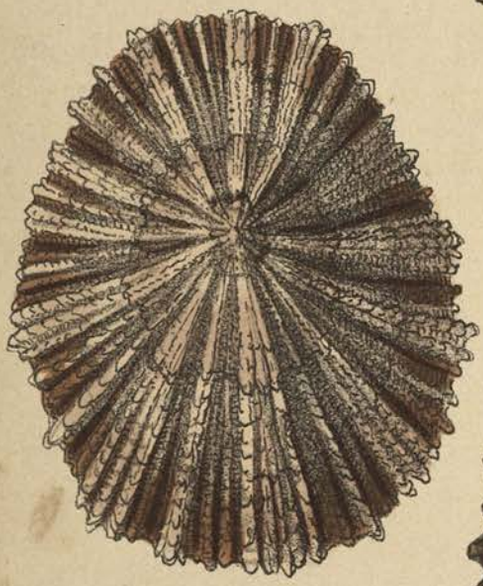
21 b



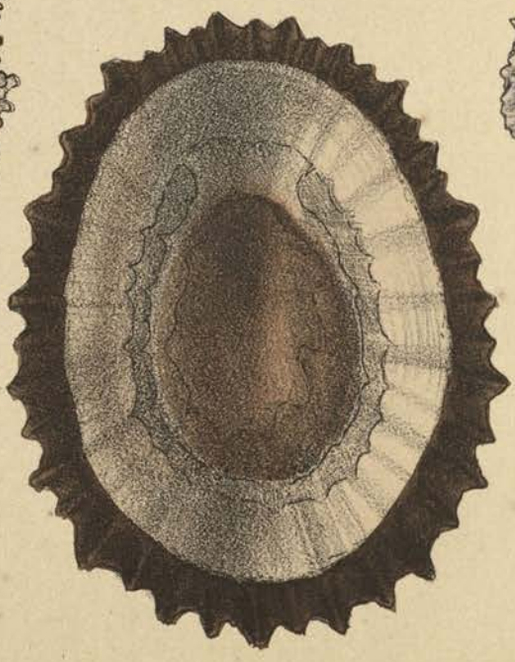
21 c



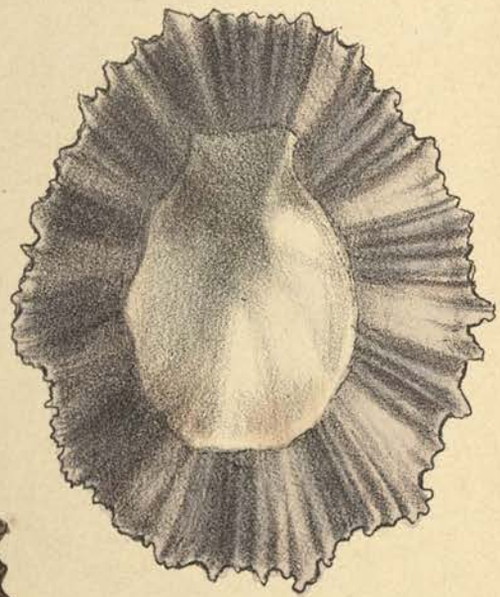
22 a



23 a



22 b



23 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XI.

Species 21. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA VARICOSA. *Pat. testâ suboblongo-ovatâ, anticè paululum contractâ, convexâ, apice anticè inclinato, radiatim costatâ, costis latis, irregularibus, ferè obsoletis; virescente-albâ, purpureo-castaneo tinctâ et venosâ, intus venosâ et variegatâ.*

THE VARICOSE LIMPET. Shell rather oblong-ovate, a little contracted in front, convex, apex inclined anteriorly, radiately ribbed, ribs broad, irregular, nearly obsolete; greenish-white, stained and veined with purple-chestnut, veined and variegated interior.

Hab. Tierra del Fuego; Cuming.

The painting of this shell, when not obscured by age, is very similar to that of *P. venosa* of the preceding plate. The form of the shell is a more oblong-oval, and the ribs of the surface are broad and almost obsolete.

Species 22. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA VIDUA. *Pat. testâ ovatâ, convexiusculâ, fortiter acutè costatâ, costis alternatim minoribus, minutè squamatis, squamis distantibus, costâ alternâ interdum ferè obsoletâ; ferrugineo-nigrâ, apice erosâ, intus albidâ, fasciâ latâ ferrugineo-nigrâ ad marginem, nucleo pallidè ferrugineo.*

THE WIDOW LIMPET. Shell ovate, moderately convex, strongly sharply ribbed, ribs alternately smaller, minutely scaled, scales distant, the alternate rib sometimes nearly obsolete, rusty-black, eroded at the apex, interior whitish, with a broad rusty-black band at the edge, nucleus pale rust.

Hab. Island of Camiguing, Philippines.

A moderately convex shell, rayed with sharp ribs, alternately larger and smaller, each rib being roughened with minute somewhat distant scales; the chief characteristic of the species lies in its broad deep rust-black marginal border.

Species 23. (Fig. *a*, *b*, Mus. Cuming.)

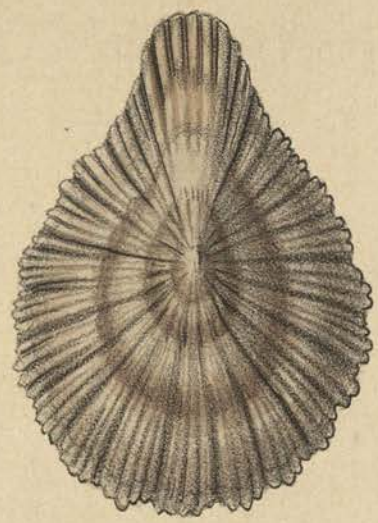
PATELLA ASPERA. *Pat. testâ ovatâ, suboctagonâ, anticè paululum contractâ, leviter convexâ, variè irregulariter costatâ, undique tenuiliratâ, liris squamato-spinosis; albidâ, ferrugineo vel atro variegatâ, intus pellucido-albâ, margine crenulatâ.*

THE ROUGH LIMPET. Shell ovate, suboctagonal, a little contracted in front, slightly convex, variously irregularly ribbed, finely ridged throughout, ridges squamately spinose; whitish, variegated with rust or black, interior pellucid-white, crenulated at the margin.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 529.

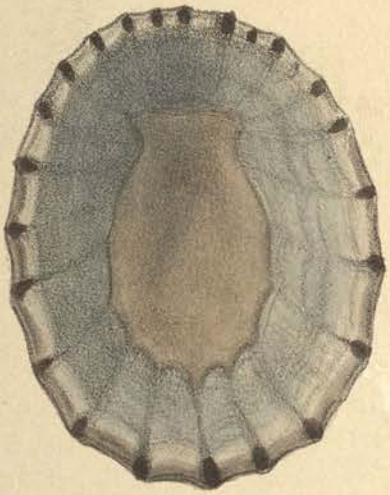
Hab. Madeira.

Of a suboctagonal form, but little convex, rudely irregularly ribbed and densely finely ridged, the ridges being profusely scale-spined.



24a

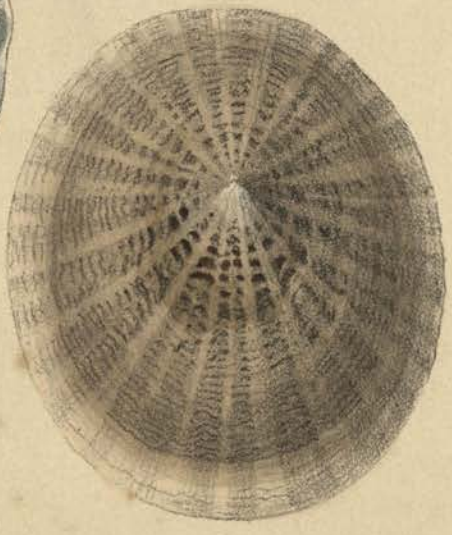
25a



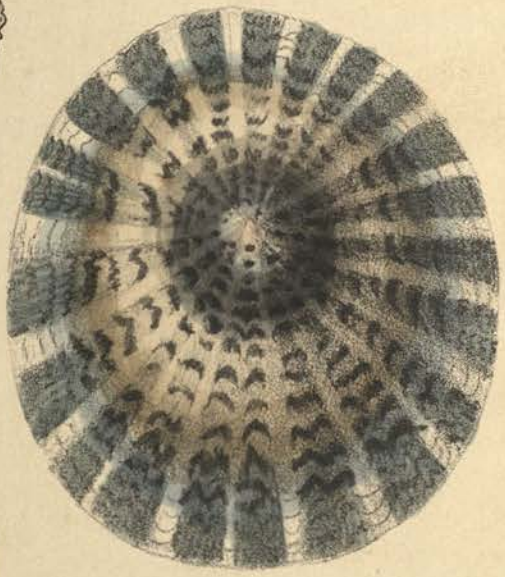
25b

24b

26a



26c



26b

Sowerby del et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XII.

Species 24. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA COCHLEAR. *Pat. testâ rotundato-ovatâ, parum convexâ, anticè attenuato-productâ et cochleariformi, radiatim plano-costatâ, costis latis, acutè sulcatis; cærulescente-albâ, intus cæruliore, impressione musculari cæruleo-nigrâ, margine crenulato.*

THE SPOON LIMPET. Shell rotundately ovate, but little convex, anteriorly attenuately produced and spoon-shaped, radiately flatly ribbed, ribs broad, sharply ridged; bluish-white, interior more blue, with the muscular impression blue-black, margin crenulated.

GMELIN, Syst. Nat. p. 3721.

Hab. Cape of Good Hope.

A very characteristic species, always distinguishable by its blue colouring and by the spoon-shaped prolongation of the anterior extremity.

Species 25. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA RADIANS. *Pat. testâ ovatâ, convexiusculâ, apice anticè multò inclinato, radiatim costatâ, costis rotundatis, subdistantibus, obsoletè nodosis, anticis brevissimis; olivaceo-cinereâ, costis plus minus nigris, interstitiis nigro alboque maculatis, intus sordidè cinereâ, nucleo fulvo.*

THE RAYED LIMPET. Shell ovate, moderately convex, apex very much inclined anteriorly, radiately ribbed, ribs rounded, rather distant, obsoletely nodose, front ribs very short; olive-ash, ribs more or less black, interstices blotched with black and white, interior dull ash, nucleus fulvous.

GMELIN, Syst. Nat. 13th edit. p. 3720.

Hab. New Zealand; Earl.

The apex of this species is unusually much inclined anteriorly. The entire surface is distinctly rayed with full cord-like ribs, black-stained, and sprinkled chiefly in the interstices with white spots.

Species 26. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA VIRIDULA. *Pat. testâ rotundato-ovatâ, subconoideâ, undique peculiariter densè minutè indentatâ, radiatim costatâ; costis distantibus, planulatis, ferè obsoletis; flavescente-albâ, viridi plus minus maculatâ et punctatâ, costis opaco-albo interdum punctatis, intus albâ, margine viridi.*

THE GREENISH LIMPET. Shell rotundately ovate, subconoid, everywhere peculiarly densely minutely indentated, radiately ribbed, ribs distant, flattish, almost obsolete; yellowish-white, more or less blotched and dotted with green, ribs sometimes dotted with opake-white, interior white, green at the edge.

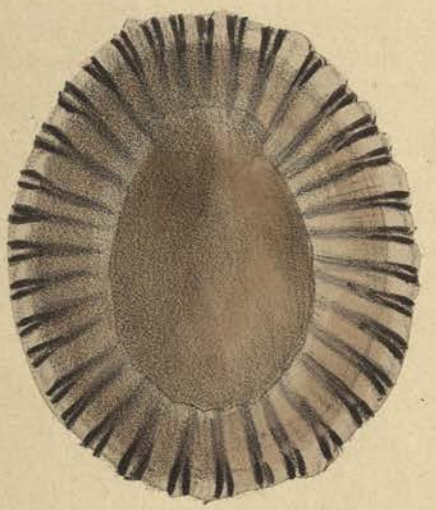
LAMARCK, Anim. sans vert. vol. vii. p. 539.

Patella Pretrei, D'Orbigny.

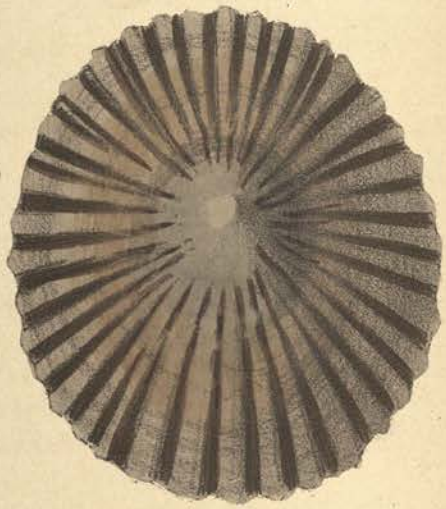
Hab. Coquimbo; Cuming.

Peculiarly finely indented throughout, and dotted and variegated with bright green.

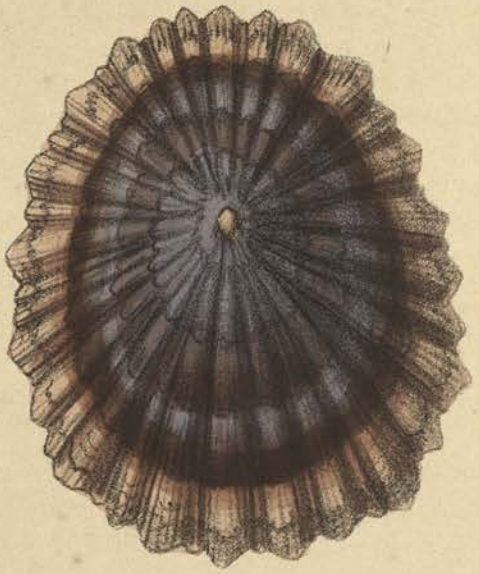
27a



27b

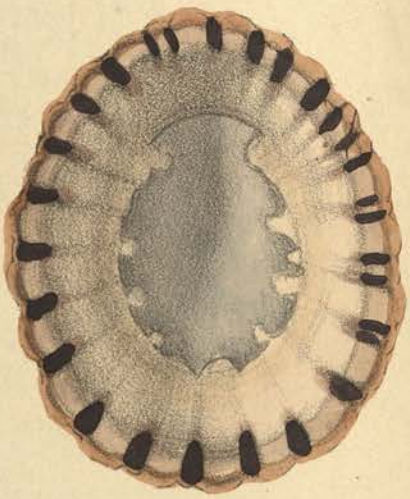


27c



28a

29a



29b

28b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XIII.

Species 27. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA TRAMOSERICA. *Pat. testâ ovatâ, subconoideâ, radiatim costatâ, costis confertis, interdum obscurè nodoso-tuberculatis, raro submuricatis; lutescente aut roseâ, nigro radiatâ, radiis albo maculatis, vel interstitiis omnino nigris, intus margine plus minus viridè coloratâ.*

THE DRUGGET LIMPET. Shell ovate, subconoid, radiately ribbed, ribs close-set, sometimes obscurely nodosely tubercled, rarely a little prickled; yellowish or rose-tinged, rayed with black, rays white-spotted, or with the interstices altogether black, interior more or less brightly coloured at the margin.

MARTYN, Universal Conchology, vol. i. pl. 16.

Hab. Australia.

Distinctly coloured with black and yellow or black and scarlet, which shines through brightly into the interior at the margin.

Species 28. (Fig. *a*, *b*, Mus Cuming.)

PATELLA CÆRULEA. *Pat. testâ ovatâ, convexiusculâ, apice anticè subinclinato, radiatim costatâ, costis rudibus, irregularibus, nunc grandibus, nunc parvis; virescente-cæruleâ, purpureo-rufo versus marginem tinctâ, intus pellucido-coloratâ, nucleo opaco-albo.*

THE BLUE LIMPET. Shell ovate, moderately convex, the apex a little inclined anteriorly, radiately ribbed, ribs rude and irregular, now large, now small; greenish-blue, tinged with purple-red towards the margin, interior transparently coloured, nucleus opake-white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 531.

Hab. Teneriffe.

A delicate subtransparent rough-ribbed species, greenish-blue, tinged with purple-red towards the margin.

Species 29. (Mus. Cuming.)

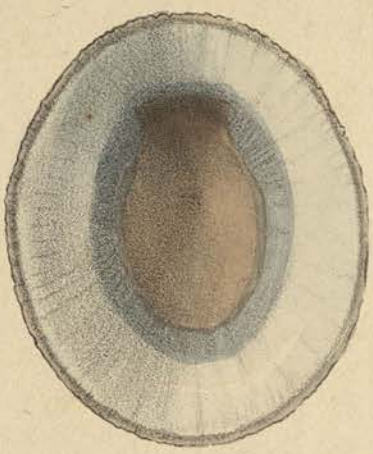
PATELLA LIMBATA. *Pat. testâ ovatâ, subconoideâ, radiatim costatâ, costis rudibus, latis, plus minus indistinctis, nodulatis, obsoletè muricatis; intensè aurantiâ, costarum interstitiis angustissimis nigris, intus margine aurantio nigro conspicuè maculato, nucleo cæruleo.*

THE EDGED LIMPET. Shell subconoid, radiately ribbed, ribs rude, broad, more or less indistinct, nodulled, obsoletely prickly; deep orange, interstices between the ribs very narrow, black, interior orange at the margin, conspicuously blotched with black, nucleus blue.

PHILIPPI, Abbild. und Besch. Conch. pl. 3. f. 1.

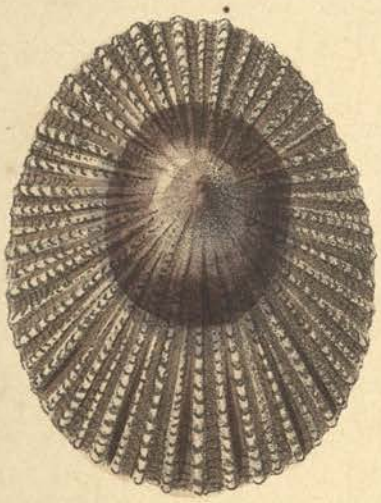
Hab. Signet Bay, North Australia; Dring.

Closely allied to *P. tramoserica*, from the same locality, with the ribs broader and less distant from each other.

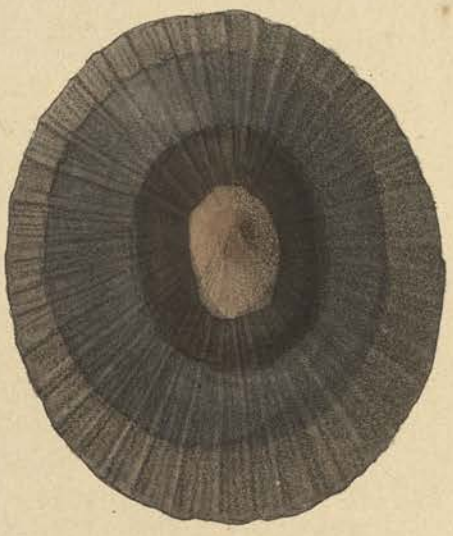


30a

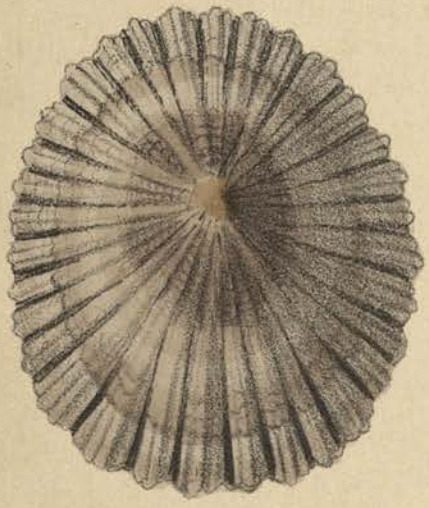
31a



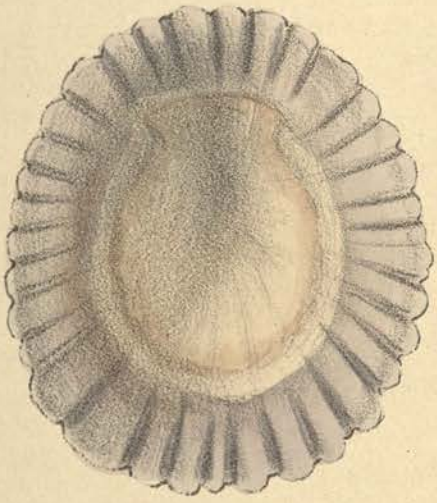
31b



30b



32a



32b

32c

Sowerby del et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XIV.

Species 30. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA CLATHRATULA. *Pat. testâ rotundato-ovatâ, subconoideâ, apice anticè subinclinato, liris subtilibus profusè radiatâ, striis concentricis clathratâ; intensè cinereo-olivaceâ, immaculatâ, intus pallidè olivaceo-cinereâ, margine saturatiore, nucleo fulvo.*

THE FINELY LATTICED LIMPET. Shell rotundately ovate, subconoid, apex a little inclined anteriorly, profusely rayed with fine ridges, latticed with concentric striæ; dark ash-olive, unspotted, interior light olive-ash, darker at the margin, nucleus fulvous.

Hab. Isle of Juan Fernandez; Cuming.

Of a regular conoid form, finely latticed throughout, and of a uniform dark cinder-olive colour.

Species 31. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA GRANULARIS. *Pat. testâ ovatâ, anticè paululum contractâ, subconoideâ, apice anticè leviter inclinato, densè radiatim liratâ, liris irregularibus, plus minus prominentibus, nitidè squamato-imbricatis; nigricante-cinereâ, squamis albis, intus latè fusco-marginatâ, deinde cærulescente, nucleo rufo-castaneo, limbo hic illic albo denticulato.*

THE GRANULAR LIMPET. Shell ovate, a little contracted anteriorly, subconoid, apex slightly inclined in front, densely radiately ridged, ridges irregular, more or less prominent, neatly squamately imbricated; blackish-ash, scales white, interior broadly brown-edged, then bluish, nucleus reddish-chestnut, edge denticulated here and there with white.

LINNÆUS, Syst. Nat. (12th edit.) p. 1258.

Patella denticulata, Martyn.

Hab. Cape of Good Hope.

Singularly characterized by a profusion of white prickly imbrications, upon a dull dirty ash-black ground.

Species 32. (Fig. *a*, *b*, *c*, Mus. Cuming.)

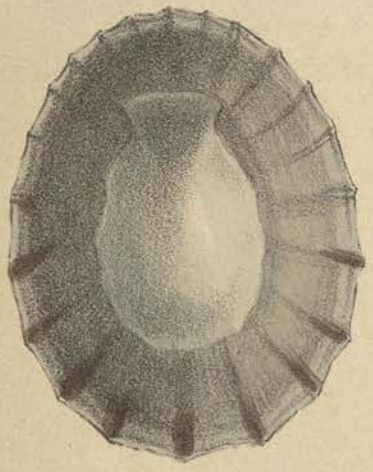
PATELLA LUGUBRIS. *Pat. testâ ovatâ, convexiusculâ, apice anticè leviter inclinato, densè rudè costatâ et liratâ, et nodosè muricato-squamatâ; sordidè albâ, intensè nigro tinctâ et maculatâ, intus fulvo-albâ vel plumbeo-cæruleâ, margine latè serrato.*

THE MOURNFUL LIMPET. Shell ovate, moderately convex, apex slightly inclined anteriorly, densely rudely ribbed and ridged, and nodosely prickly-scaled; dull white, stained and blotched with intense black, interior fulvous-white or lead-blue, margin broadly serrated.

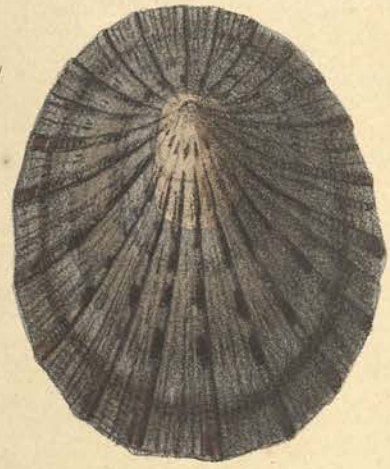
Hab. Island of St. Vincent's, West Indies.

An irregularly roughly ribbed shell, covered with short prickly-scaled nodules. Of a dull white ground, more or less stained and blotched with intense black.

33a

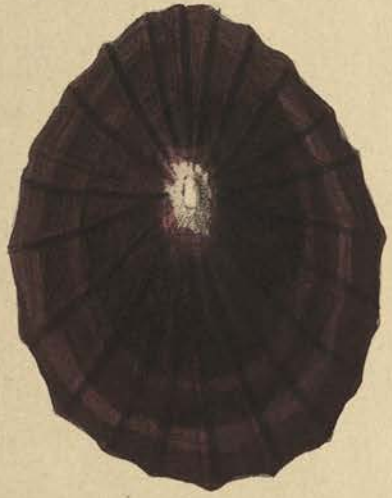


33b

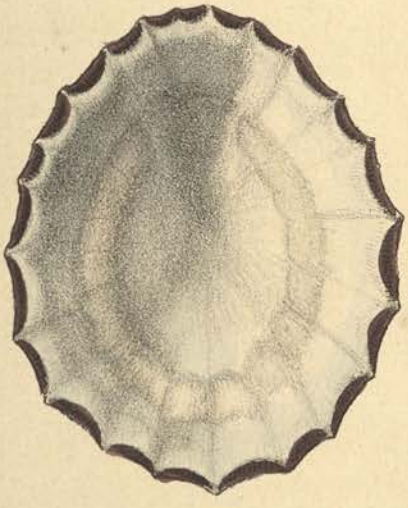


33c

34a



35a



35b

34b

Sowerby del et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XV.

Species 33. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA DECORA. *Pat. testâ ovatâ, semigloboso-concavâ, apice anticè multo inclinato, radiatim costatâ, costis angustis, rotundatis, vix elevatis, distantibus, interstitiis undato-striatis, striis concentricis obsoletè decussatis; virescente-olivaceâ vel luteâ, costis nigro vel sanguineo maculatis, intus pellucido-cinereâ.*

THE COMELY LIMPET. Shell ovate, semiglobosely concave, apex much inclined anteriorly, radiately ribbed, ribs narrow, rounded, but little raised, distant, interstices wave-striated, obsoletely decussated with concentric striæ; greenish-olive or yellow, ribs blotched with black or blood-colour, interior transparent-ash.

PHILIPPI, Abbild. und Besch. Conch. pl. 2. f. 5.

Hab. New Zealand; Earl.

Of a peculiar semiglobose form, with the apex very much inclined to the anterior, rayed with ribs, blotched with black and blood-like gouts.

Species 34. (Fig. *a*, *b*, Mus. Cuming.)

PATELLA CANDEI. *Pat. testâ ovatâ, subconoideâ, versus marginem leviter compressâ, obsoletè nodoso-clathratâ, plerumque multo erosâ, lineis concentricis albis undatis formantibus; intus extusque semipellucidè lividoolivaceâ, nucleo albo.*

CANDE'S LIMPET. Shell ovate, subconoid, slightly compressed towards the margin, obsoletely nodosely latticed, generally much eroded, forming concentric waved white lines; semitransparent livid olive within and without, nucleus white.

D'ORBIGNY, Moll. des Isles Canaries.

Hab. Canary Islands.

A semitransparent livid-olive shell, obsoletely nodosely latticed, but generally very much worn and eroded, leaving characteristic white waved lines.

Species 35. (Fig. *a*, *b*, Mus. Cuming.)

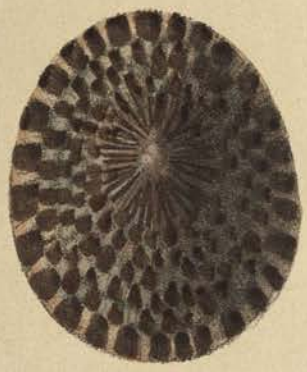
PATELLA EXUSTA. *Pat. testâ ovatâ, anticè subattenuatâ, planulato-convexâ, subexpansâ, apice anticè inclinato, radiatim costatâ, costis, cum superficie, rudibus, irregularibus, obscurè muricato-squamatis, interstitiis liris concentricis subdistantibus obsoletè clathratis; ustulato-nigrâ, rufo-tinctâ, intus marmoreo-albâ, margine remotè denticulato, purpureo-nigro.*

THE BURNT LIMPET. Shell ovate, a little attenuated in front, flatly convex, rather spread, apex inclined anteriorly, radiately ribbed, ribs (with the surface) rude, irregular, obscurely prickly-scaled, interstices obsoletely latticed with rather distant concentric ridges; burnt-black, red-tinged, interior marble-white, edge remotely denticulated, purple-black.

Hab. ——?

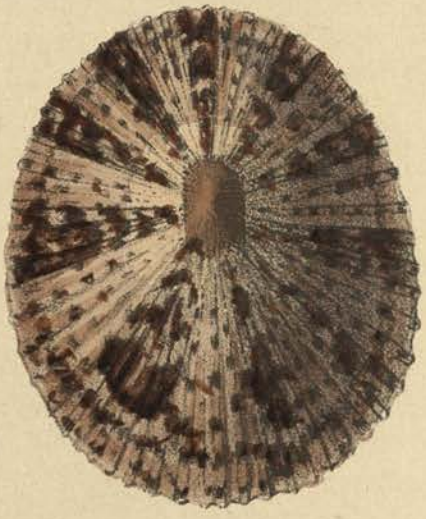
An extremely characteristic species, marble-white within, reddish-burnt black without, but of singular rude irregular obsoletely latticed sculpture.

36a



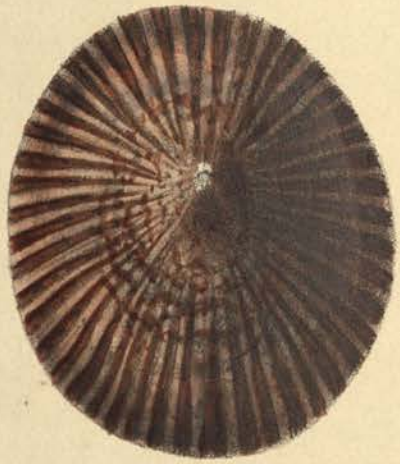
37a

37b



36b

38a



38b

36c

Sowerby del et lith.

Vincent Brooks imp.

PATELLA.

PLATE XVI.

Species 36. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA VARIEGATA. *Pat. testâ orbiculari-ovatâ, subacuminato-convexâ, anticè paululum inclinatâ, radiatim granoso-liratâ, granis obtusis, valdè irregularibus; lutescente, nigro-purpureo interruptè radiatâ et maculatâ, intus obscurè semipellucidâ, argenteo-iridescente.*

THE VARIEGATED LIMPET. Shell orbicularly ovate, subacuminately convex, a little inclined anteriorly, radiately granosely ridged, grains obtuse, very irregular; yellow, interruptedly rayed and blotched with very dark purple, obscurely semitransparent within, silvery iridescent.

REEVE, Conch. Syst. vol. ii. pl. 136. f. 1.

Hab. Australia.

A rather acuminately raised shell, roughly bluntly granuled, marked with numerous spots and broken blotched rays of very dark purple.

Species 37. (Mus. Cuming.)

PATELLA CUMINGII. *Pat. testâ orbiculari-ovatâ, subdepresso-convexâ, anticè leviter attenuatâ et inclinatâ, liris tenuibus confertim radiatâ, in juniore striis concentricis eleganter decussatâ; lutescente aut virescente-albâ, intensè viridi densè tessellatim tinctâ, intus cærulescente-albâ, margine lato maculato.*

CUMING'S LIMPET. Shell orbicularly ovate, rather depressly convex, slightly attenuated and inclined anteriorly, closely rayed with fine ridges, in the young shell elegantly cancellated with concentric striæ; yellowish or greenish-white, densely tessellately mottled with dark green, interior bluish-white, with a broad mottled border.

Hab. Valparaiso; Cuming.

A very dark green and yellowish-white mottled shell, rather depressly convex, characterized internally with a conspicuous broad mottled border. It is closely allied to the *P. diaphana*, Nuttall, from Mazatlan.

Species 38. (Mus. Cuming.)

PATELLA CLYPEATER. *Pat. testâ depresso-orbiculari, tenuiculâ, densè radiatim liratâ, liris irregularibus, obsoletè tuberculato-undatis, ferrugineo-fusco pulcherrimè tinctâ et maculatâ, intus argenteo-iridescente, medio vividè purpureo-ferrugineâ.*

THE SHIELD LIMPET. Shell depressly orbicular, rather thin, densely radiately ridged, ridges regular, obsoletely tubercularly waved, very beautifully stained and mottled with rust-brown, interior silvery iridescent, bright purple-rust in the middle.

LESSON, Zool. Voy. de la Coquille, p. 419.

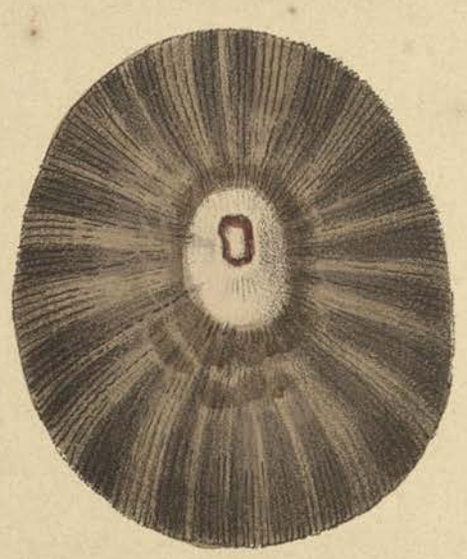
Hab. Monterey, Lower California; Hartweg.

A rather thin subdepressed species, profusely stained and dotted with copper-rust-brown, the interior being brilliantly silvery iridescent.

39a

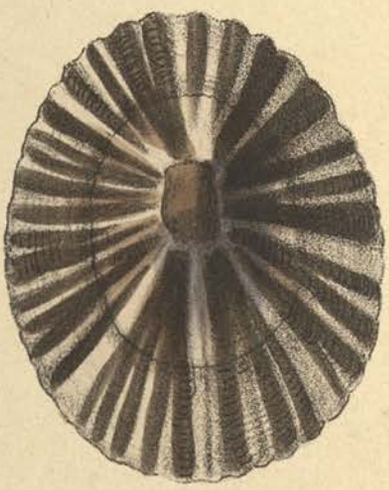
40a

40b

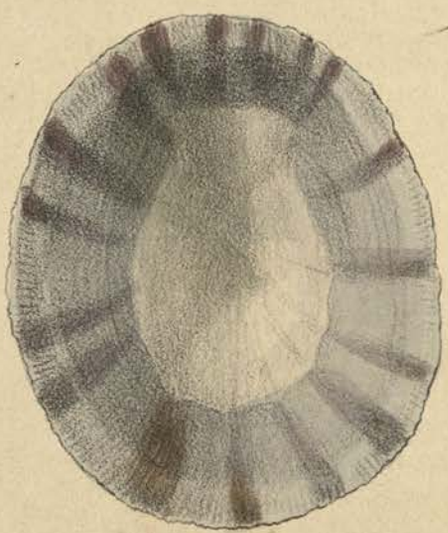


39b

41a



41b



39c

Sowerby del et lith.

Vincent Brooks imp.

PATELLA.

PLATE XVII.

Species 39. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA ROTA. *Pat. testâ depresso-ovatâ, anticè subattenuatâ, radiatim rugoso-striatâ vel liratâ, liris in testâ juniore oblongo-granatis, deinde obsoletis; lutescente-albâ vel plumbeâ, purpureo-fusco remotè radiatâ, intus argenteo-corneâ, medio interdum aurantio-rufâ.*

THE WHEEL LIMPET. Shell depressly ovate, anteriorly subattenuated, radiately roughly striated or ridged, ridges in the young shell oblong-grained, then obsolete; yellowish-white or lead-colour, distantly rayed with purple-brown, interior silvery horny, sometimes orange-red in the middle.

CHEMNITZ, Conch. Cab. vol. x. p. 330. pl. 168. f. 1619.

Hab. Suez, Mozambique.

Extremely variable in distinctness of character, the rays in most specimens being almost obsolete.

Species 40. (Mus. Cuming.)

PATELLA FERRUGINEA. *Pat. testâ oblongo-ovatâ, anticè subattenuatâ et multo inclinatâ, profundè elevato-convexâ, interdum subcompressâ, obsoletè undato-liratâ, liris subdistantibus, lineis concentricis densè circumdatâ; ferrugineo-cinereâ, intus intensè ærugineo-fuscâ.*

THE FERRUGINOUS LIMPET. Shell oblong-ovate, a little attenuated and much inclined in front, deeply elevately convex, sometimes a little compressed, obsoletely wave-ridged, ridges rather distant, densely encircled with concentric lines; ferruginous ash, deep bronze-brown within.

SOWERBY (Mus. Cuming).

Patella Delessertii, Philippi.

Hab. ——?

A subcompressed deeply raised shell, obscurely ash-stained without, and of a rich dark bronze-brown within.

Species 41. (Mus. Cuming.)

PATELLA ATRAMENTOSA. *Pat. testâ ovatâ, utrinque subattenuatâ, elevatâ, crassiusculâ, rudè obtuso-costatâ, costis irregularibus, obsoletè tuberculatis; albidâ, atro latè profusè fluente, intus argenteo-luteâ, ærugineo-fusco tinctâ, margine dentato, nigro-maculato.*

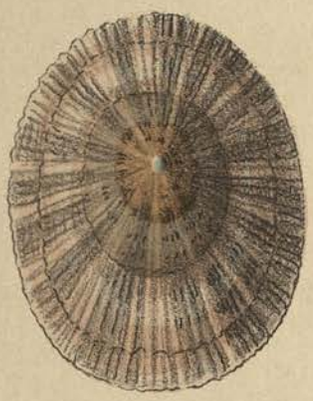
THE INKY LIMPET. Shell ovate, rather attenuated at both ends, raised, rather thick, rudely bluntly ribbed, ribs irregular, obsoletely tubercled; whitish, broadly profusely flowing with jet-black, interior silvery yellow, stained with bronze-brown, margin denticulated, black-spotted.

Hab. Cape Horn.

A raised attenuately ovate species, with a characteristic painting of broad flowing ink-streaks, white appearing in the interstices at irregular distances.

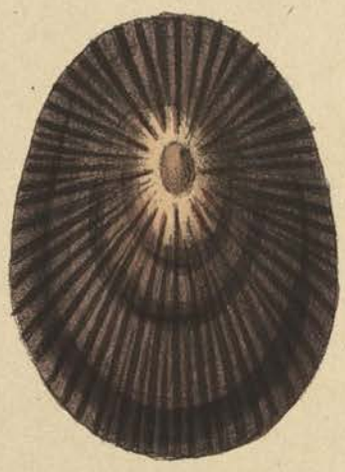
---

42 a



42

42



43a

44a

44b

43b

Sowerby del et lith.

Vincent Brooks imp.

PATELLA.

PLATE XVIII.

Species 42. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA VULGATA. *Pat. testâ ovatâ, subprofundè convexâ, apice subcentrali, radiatim striatâ vel costatâ, costis interdum squamato-spinosis; cinereâ vel lutescente-olivaceâ, obscurè radiatâ, spinis albidis, intus livido-olivaceâ.*

THE COMMON LIMPET. Shell ovate, rather deeply convex, apex nearly central, radiately striated or ribbed, ribs sometimes squamately spined; greyish or yellow-olive, obscurely rayed, spines white, interior livid-olive.

LINNÆUS, Syst. Nat. (12th edit.) p. 1258.

Patella depressa, Pennant.

Patella vulgaris, Da Costa.

Hab. Atlantic shores of Europe.

This well-known species is curiously varied in sculpture, but not differing materially in colour. Sometimes it is smooth or gently striated, and sometimes ribbed and minutely scale-spined.

Species 43. (Mus. Cuming.)

PATELLA NIGRO-LINEATA. *Pat. testâ suboblongo-ovatâ, anticè subattenuatâ et multò inclinatâ, tenuiculâ, depressiusculâ, radiatim liratâ, liris obtusis, subdistantibus, alternis medio terminalibus; cinereo-nigricante, ad apicem pallescente, liris intensè nigris, intus nigrescente-cæruleâ, nucleo ustulato-fuscescente.*

THE BLACK-LINED LIMPET. Shell rather oblong-ovate, slightly attenuated and much inclined anteriorly, thinnish, rather depressed, radiately ridged, ridges obtuse, rather distant, the alternate ones terminating about the middle; cinder-black, pale at the apex, ridges deep black, interior blackish-blue, nucleus burnt-brown.

Hab. Island of Camiguing, Philippines; Cuming.

A rather thin cinder-black shell, conspicuously rayed with blunt scarcely rayed black ridges, bluish in the interior, with a characteristic light burnt-brown nucleus.

Species 44. (Mus. Cuming.)

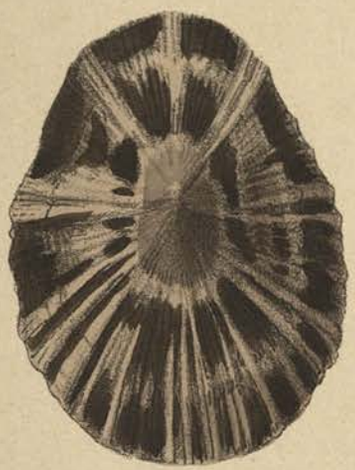
PATELLA ENNEAGONA. *Pat. testâ ovatâ, anticè subattenuatâ et inclinatâ, depressâ, crassiusculâ, apice obtusâ, densè crenulato-liratâ, peculiariter enneagonâ, areis tribus anticis angustis; lutescente, areis nonis intensè purpureo diagonaliter reticulato-strigatis, intus argenteo-iridescente.*

THE NINE-SIDED LIMPET. Shell ovate, a little attenuated in front, depressed, rather thick, obtuse at the apex, subattenuated and inclined, densely crenulately ridged, peculiarly nine-sided, the three front areas narrow; yellowish, the nine areas diagonally reticulately streaked with deep purple, interior silvery iridescent.

Hab. ——?

This very characteristic species is divided on the surface into nine distinct areas, of which the three front are smaller than the rest; and the diagonal net-striped painting appears in the areas only.

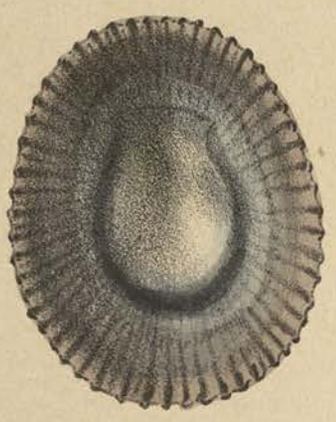
45a



45b

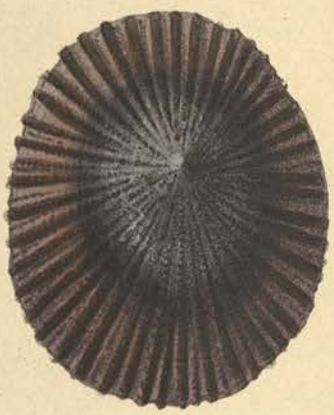
45c

46a



47a

46b



47b

Sowerby del et lith.

Vincent Brooks imp.

PATELLA.

PLATE XIX.

Species 45. (Mus. Cuming.)

PATELLA PICA. *Pat. testâ ovatâ, anticè acuminatâ, subcochleariformi, depressâ, medio elevatâ, radiatim rudè liratâ et costatâ, muricato-squamatâ, squamis ætate plus minus obsoletis; fulvescente-albâ, nigro variè picatâ, intus albicante, flavido-fusco tinctâ, margine denticulato, picato.*

THE PIED LIMPET. Shell ovate, acuminated in front, somewhat spoon-shaped, depressed, raised in the middle, radiately rudely ridged and ribbed, prickly scaled, scales more or less obsolete with age; fulvous-white, variously pied with black, interior white, tinged with yellowish-brown, margin denticulated, pied.

Hab. South Seas.

A characteristic spoon-shaped shell, rudely prickly ridged and ribbed, yellowish-white, promiscuously blotched with positive black.

Fig. 46. (Mus. Cuming.)

This shell is the young of *P. plumbea*, represented at Plate II., which it is important to figure, as showing the sharper and more crenated structure of the ridges.

Species 47. (Mus. Cuming.)

PATELLA EXARATA. *Pat. testâ rotundato-ovatâ, elevatâ, apice anticè leviter inclinatâ, radiatim liratâ, liris distinctis, subremotis, irregularibus, rotundatis, tenuè confertim crenatis; pallidè fulvâ, subpellucidâ, liris cæruleo-nigricantibus, opacis, intus argenteo-iridescente, medio cærulescente-lacteâ.*

THE PLOUGHED LIMPET. Shell rotundately ovate, raised, slightly anteriorly inclined at the apex, radiately ridged, ridges distinct, rather distant, irregular, rounded, finely closely crenated; pale fulvous, subpellucid, ridges blue-black, opake, interior silvery iridescent, milky-blue towards the middle.

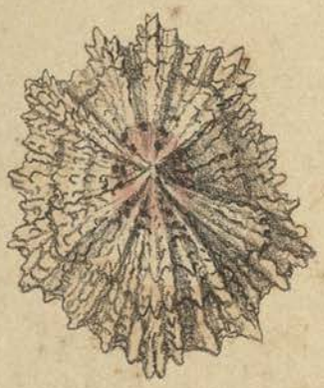
NUTTALL, Jay's Catalogue of Shells, p. 38.

Hab. Oregon, California; Lieutenant Baskerville.

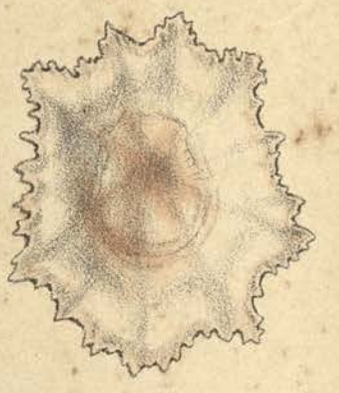
A light silvery shell, rayed with conspicuously defined, blue-black, closely crenated, rounded ridges.

---

48 a

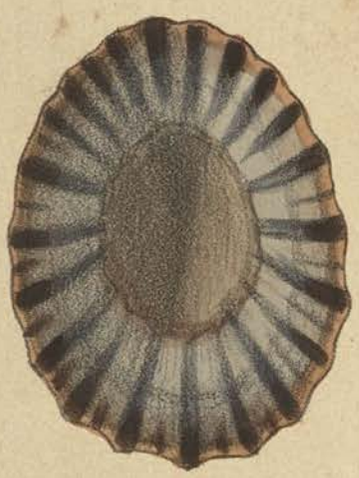


48 b



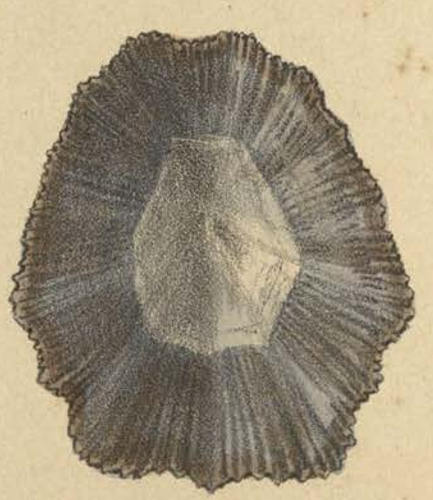
48 c

49 a



50 a

50 b



49 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XX.

Species 48. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA PENTAGONA. *Pat. testâ ovatâ vel pentagonâ, valde irregulari, nunc depressâ, nunc elevatâ, costis octo vel novem radiatâ, costis variè tuberculatis et squamatis, interstitiis rugoso-clathratis; albâ, nigro plus minus picatâ, medio aurantio tinctâ.*

THE FIVE-SIDED LIMPET. Shell ovate or five-angled, very irregular, sometimes depressed, sometimes raised, rayed with eight or nine ribs, ribs variously tubercled and scaled, interstices wrinkle-latticed; white, more or less pied with black, orange-stained in the middle.

BORN, Mus. Test. Vindobonensis.

Patella stellæformis, Reeve (in Conch. Syst.).

Hab. Elizabeth Island, South Seas, and Philippine Islands.

Remarkable for its irregular growth, and white, tubercled, rudely wrinkled, sculptured, more or less pied in the interstices with black.

Species 49. (Mus. Cuming.)

PATELLA SCUTELLARIS. *Pat. testâ subhexagono-ovatâ, anticè paululum attenuatâ, depressâ, tenuiculâ, radiatim costatâ, costis distantibus, subobsoletis, interstitiis densè tenuiliratis et striatis, minutè crenulatis; olivaceo-cæruleâ, costis versus apicem pallidioribus, intus pellucido-griseâ.*

THE DISH LIMPET. Shell somewhat hexagonally ovate, a little attenuated in front, depressed, rather thin, radiately ribbed, ribs distant, rather obsolete, interstices densely finely ridged and striated, minutely crenulated; olive-blue, ribs paler towards the apex, interior transparent grey.

LAMARCK, Anim. sans vert. (Deshayes edit.) vol. vii. p. 532.

Hab. Bay of Naples.

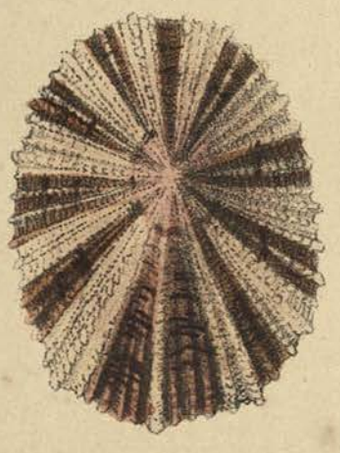
A transparent olive-grey is the prevailing colour of this species, but it is variable.

Fig. 50. (Mus. Cuming.)

This shell proves to be *P. redimiculum*, represented at Plate XII. in an earlier stage of growth, when the interior is less coated with opake lining, and has a more transparent tortoise-shell appearance. It has been attributed to *P. radians*, Gmelin, but like many other species of this author, it rests on doubtful evidence.

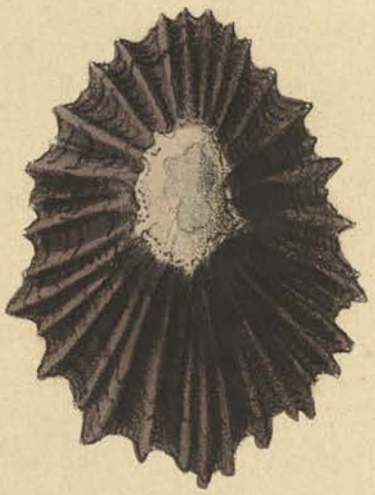
---

51 a

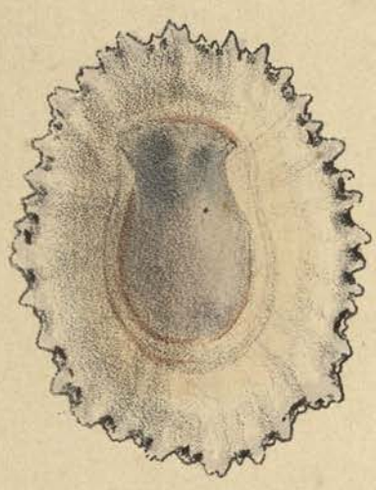


51 b

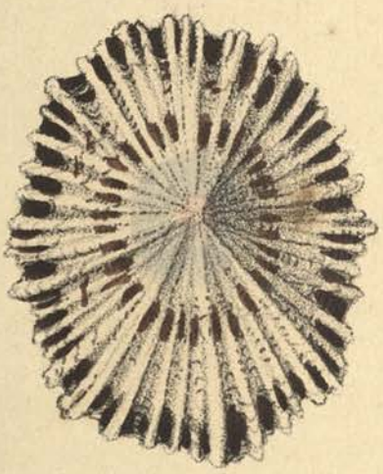
51 c



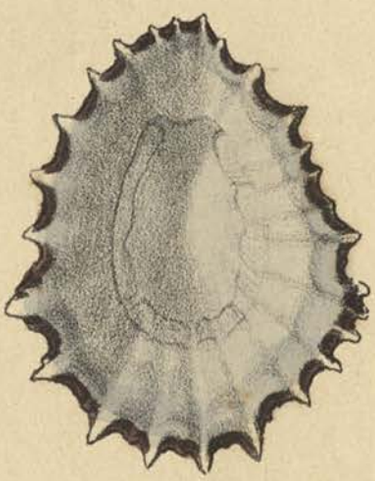
52 a



53 a



53 b



52 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXI.

Species 51. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA BONNARDI. *Pat. testâ ovatâ, subacutè convexâ, apice subanticâ, costis lirisque acutè compressis densè radiatâ, squamis concentricis decussatâ; albâ, nigro vel fusco radiatâ, intus subpellucido-albâ.*

BONNARD'S LIMPET. Shell ovate, rather sharply convex, subanterior at the apex, profusely rayed with sharply compressed ribs and ridges, decussated with concentric scales; white, rayed with black or brown, interior subtransparent white.

PAYRAUDEAU, Cat. Moll. de Corse, p. 89. pl. 3. f. 9–11.

Hab. Mediterranean.

A sharply convex shell, rayed with numerous compressed squamate ribs and ridges; white rayed with black or rust-brown.

Species 52. (Mus. Cuming.)

PATELLA CHITONOIDES. *Pat. testâ ovatâ, anticè acuminatâ, valdè depressâ, crassiusculâ, irregulariter radiatim costatâ, costis acutis, rudibus, plus minus obsoletè squamato-tuberculatis; intensè purpureo-nigrâ, hic illic albo-erosâ, intus lacteâ, marginè acutè denticulato, purpureo-nigro.*

THE CHITON-LIKE LIMPET. Shell ovate, acuminated in front, very depressed, rather thick, irregularly radiately ribbed, ribs sharp, rude, more or less obsoletely squamately tubercled; deep purple-black, here and there white-eroded, interior milk-white, margin sharply denticulated, purple-black.

Hab. ——?

A very depressed rudely constructed species, strongly rayed with rough irregular bluntly scaled ribs, deep purple-black except where promiscuously white-eroded.

Species 53. (Mus. Cuming.)

PATELLA CRETACEA. *Pat. testâ ovatâ, subdepressâ, radiatim densè costatâ, costis parviusculis, compressis aut tumidiusculis, obsoletè squamatis, valdè irregularibus; cretaceo-albâ, purpureo-nigro hic illic sparsim maculatâ, intus albâ, margine denticulato, purpureo-nigro tenuè limbato.*

THE CHALK LIMPET. Shell ovate, rather depressed, radiately densely ribbed, ribs rather small, compressed or swollen, obsoletely squamate, very irregular; chalk-white, here and there sparingly blotched with purple-black, interior white, margin denticulated, thinly edged with purple-black.

Hab. Tahiti.

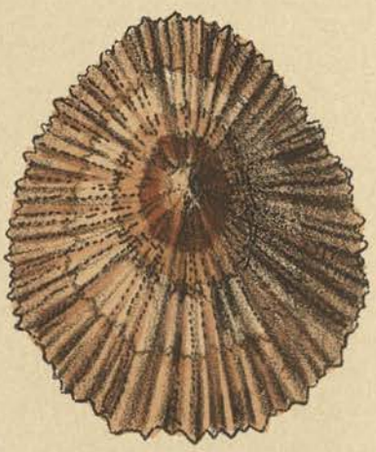
Allied to the preceding species, though of a perfectly distinct character, more truly ovate, with the ribs more numerous and irregular, and less stained with purple-black.

---

54 a

54 b

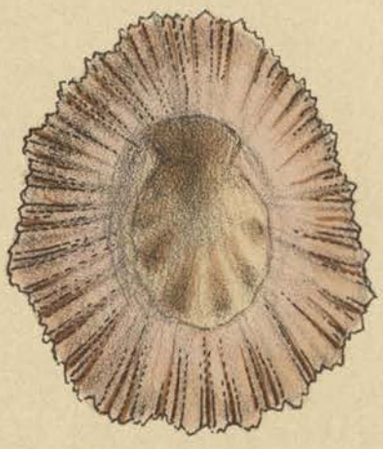
54 c



55 a

56 a

56 b



55 b

Sowerby del et lith

Vincent Brooks Imp.

PATELLA.

PLATE XXII.

Species 54. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA FUNEBRIS. *Pat. testâ ovatâ, anticè subattenuatâ, elevato-convexâ, lævigatâ, costis tuberculatis radiatâ, tuberculis tumidis, interdum subdistantibus; sordidè nigrâ, ad apicem ferrugineo-albâ, intus opaco-albâ, interdum ferrugineo tinctâ.*

THE MOURNING LIMPET. Shell ovate, slightly attenuated in front, elevately convex, smooth, rayed with tubercled ribs, tubercles swollen, sometimes rather distant; dull black, rusty-white at the apex, interior opake white, sometimes rust-tinged.

Hab. ——?

A very characteristic dull black species, smooth, but rayed with tubercularly noduled rather distant ribs.

Species 55. (Mus. Cuming.)

PATELLA ELECTRINA. *Pat. testâ orbiculari, anticè attenuatâ, subdepressâ, apice acutâ, radiatim densè liratâ, liris rudibus, irregularibus, obtusè squamatis; pallidè fulvâ, circa apicem et inter liras ferrugineâ, intus pellucido-albâ.*

THE AMBER LIMPET. Shell orbicular, attenuated in front, rather depressed, sharp at the apex, radiately densely ridged, ridges rough, irregular, bluntly squamate; light fulvous, rusty about the apex and between the ridges, interior transparent white.

Hab. Australia.

Of a subtransparent texture, stained with amber rust about the apex and between the ridges, the colour showing conspicuously through in the interior.

Species 56. (Mus. Cuming.)

PATELLA PETALATA. *Pat. testâ ovatâ, subdepressâ, obsoletè cancellato-liratâ; pellucido-flavicante, radiis latis nigricante-purpureis pictâ, intus pellucido-corneâ, nucleo castaneo-purpureo.*

THE PETALED LIMPET. Shell ovate, rather depressed, obsoletely cancellately ridged; transparent yellow, painted with broad blackish-purple rays, interior transparent horny, nucleus chestnut-purple.

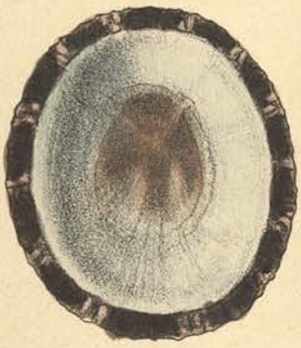
Hab. Australia.

A semi-transparent yellow horny shell, conspicuously painted with broad, rich, blackish-purple rays, which are sometimes a little broken up.

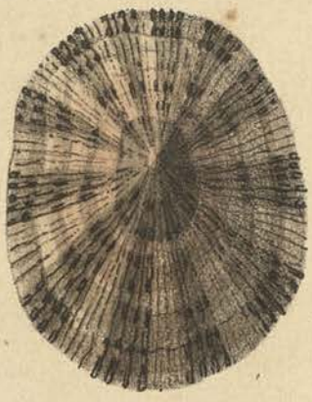
---

57 a

58 a



58 b



57 b

59 a

59 b

57 c

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXIII.

Species 57. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA NIGRO-PUNCTATA. *Pat. testâ ovatâ, elevato-convexâ, ad apicem submucronatâ, radiatim rugoso-liratâ; sordidè cinereâ, pallidè carneo tincta, obscurè latiradiatâ, liris punctis nigris oblongis gemmatis, intus fulvo-cinereâ, interdum conspicuè olivaceo radiatâ.*

THE BLACK-DOTTED LIMPET. Shell ovate, elevately convex, rather pointed at the apex, radiately rugosely ridged; dull ash-colour, pale flesh-tinted, obscurely broadly rayed, ridges beaded with oblong black dots, interior fulvous-ash, sometimes conspicuously olive-rayed.

Hab. Cascaes Bay, Portugal.

A raised subacuminately convex species, rayed in a very characteristic manner with oblong black bead-like dots.

Species 58. (Mus. Cuming.)

PATELLA STRIATA. *Pat. ovato-orbiculari, peculiariter compresso-depressâ, apice minuto, anticè inclinato, liris tenuibus funiculatis subirregulariter densè radiatâ; nigrâ, maculis parvis albis interdum indistinctè radiatâ, intus cærulescente-albâ, medio fuscescente tinctâ, margine nigro latè limbato.*

THE STRIATED LIMPET. Shell ovately orbicular, peculiarly compressly depressed, with the apex minute, inclined anteriorly, somewhat irregularly densely rayed with thin cord-like ridges; black, sometimes faintly rayed with distant small white spots, interior bluish-white, stained with brown in the middle, margin broadly edged with black.

Patelloida striata, Quoy, Voy. de l'Astrolabe, vol. iii. p. 353. pl. 71. f. 8–11.

Hab. Philippine Islands; Cuming.

Of a peculiar convexly depressed form, with a very small apex, rayed with numerous fine corded ridges, black, obscurely rayed with white spots, unusually broadly black-bordered on within.

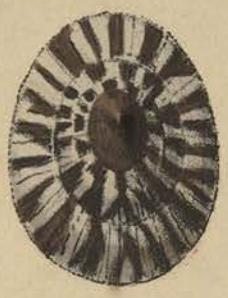
Species 59. (Mus. Cuming.)

PATELLA UNDATO-LIRATA. *Pat. testâ ovatâ, subacutè convexâ, versus apicem anticè subinclinatâ, profusè liratâ, liris tenuè crenulatis et peculiariter undulatis, cærulescente-plumbeâ, intus eodem colore, subiridescente.*

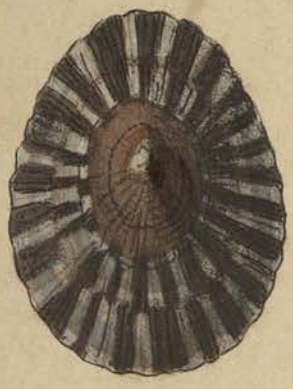
THE WAVE-RIDGED LIMPET. Shell ovate, rather sharply convex, a little inclined anteriorly towards the apex, profusely ridged, ridges finely crenulated and peculiarly waved, bluish lead-colour, interior the same colour, rather iridescent.

Hab. Sandwich Islands; Dr. Newcombe.

In form this species is sharply convex, inclined anteriorly towards the apex, from which point it is rayed with numerous thinly waved ridges. In colour it is within and without of a bluish-lead.

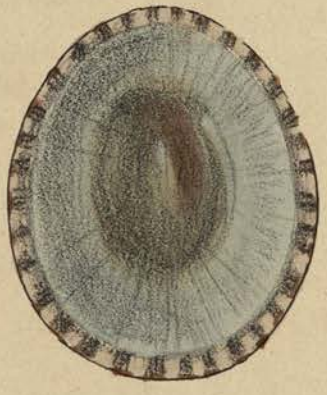


60 a

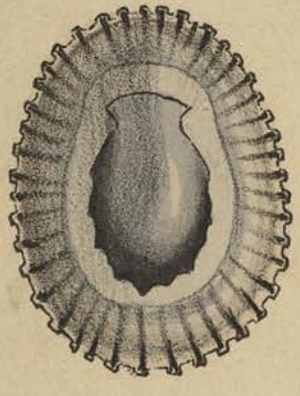


60 b

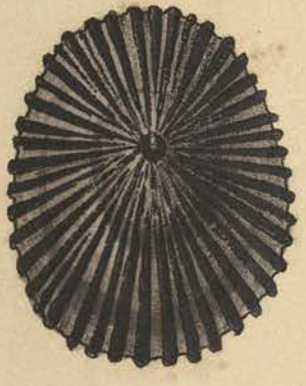
60 c



61 a



62 a



62 b

61 b

Sowerby del et lith

Vincent Brooks Imp

PATELLA.

PLATE XXIV.

Species 60. (Mus. Cuming.)

PATELLA CINIS. *Pat. testâ ovatâ, anticè subattenuatâ, subacutè elevato-convexâ, striis costisque latis retusis radiatâ, costis interdum ferè obsoletis; cinereo-nigrâ, strigis albidis undatis nebulatis ornatâ, intus nitente-albâ, nucleo intensè castaneo, parvo.*

THE CINDER LIMPET. Shell ovate, a little attenuated in front, rather sharply elevately convex, rayed with striæ and broad retuse ribs, ribs sometimes almost obsolete; cinder-black, marked with clouded waved white streaks, interior shining white, nucleus deep chestnut, small.

Hab. Monterey, Lower California; Hartweg.

The colouring of this species is a streaked pattern of faint bluish-white waves upon a dark cinder-black ground.

Species 61. (Mus. Cuming.)

PATELLA DIAPHANA. *Pat. testâ ovatâ, anticè subattenuatâ, depressâ, profusè tenuiliratâ, liris plus minus indistinctè granulatis; olivaceo-viridi, lutescente-albo peculiariter radiatâ et variegatâ, intus diaphano-virescente, ad marginem latè marmoratâ.*

THE DIAPHANOUS LIMPET. Shell ovate, slightly attenuated in front, depressed, profusely finely ridged, ridges more or less indistinctly granuled; olive-green, peculiarly rayed and variegated with yellowish-white, interior diaphanous green, broadly mottled at the margin.

NUTTALL, Jay's Catalogue of Shells, p. 38.

Hab. Upper California; Nuttall. Central America; Cuming, Hinds, Kellett.

Distinguished by a peculiar diaphanous green colouring, more or less densely variegated and mottled exteriorly with yellowish-white.

Fig. 62. (Mus. Cuming.)

A variety of *P. exarata*, described at Plate XIX., more distinctly ridged.

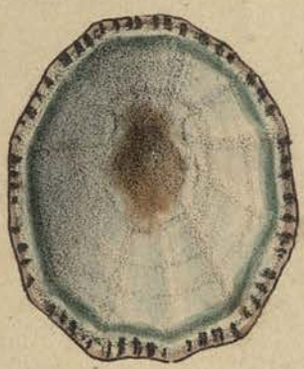
---

63 a

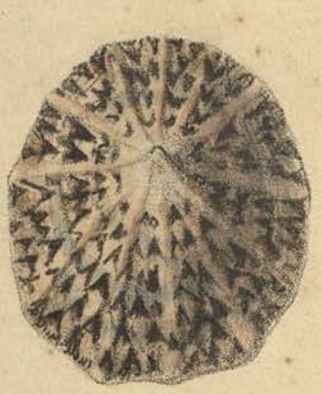
63 b

63 c

64 a



65 a



65 b

64 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXV.

Species 63. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA VARIABILIS. *Pat. testâ ovatâ, depressissimâ, irregulari, extus rudè liratâ et plus minus erosâ, interdum virescente, punctis nigris undatis radiatâ; intus cæruleascente, medio castaneo-tinctâ, peculiariter variè lineatâ et lentiginosâ, margine latè planulato, interruptè lineato.*

THE VARIABLE LIMPET. Shell ovate, very depressed, irregular, externally rudely ridged, and more or less eroded, sometimes greenish, rayed with waved black dots; interior bluish, sometimes stained with chestnut in the middle, peculiarly variously lineated and speckled, margin broadly flattened, interruptedly lineated.

SOWERBY, Zool. Beechey's Voyage, p. 147. pl. 39. f. 5 (not f. 3 or f. 4).

Hab. Valparaiso; Cuming.

This species is very depressed and irregular, peculiarly marked in the interior with dark promiscuous lines, or chestnut curiously speckled with yellow.

Species 64. (Mus. Cuming.)

PATELLA MORBIDA. *Pat. testâ ovatâ, rudè depressâ, medio rotundato-elevatâ, radiatim fimbriato-costatâ, plus minus erosâ, liris obsoletè brevispinosis; intus luteo-albâ, nigro plus minus irregulariter inquinatâ, extus ferrugineo-erosâ.*

THE DISEASED LIMPET. Shell ovate, rudely depressed, rotundately raised in the middle, radiately fimbriately ridged, more or less eroded, ridges obsoletely short-spined; interior yellowish-white, more or less irregularly stained with black, exteriorly rust-eroded.

Hab. Cape of Good Hope.

Of a characteristic depressly furbelowed growth round the margin, the radiating ridges armed here and there with short sharp black and white spines. Exteriorly the shell is roughly rust-eroded, interiorly it has a peculiarly diseased look.

Species 65. (Mus. Cuming.)

PATELLA ZEBRINA. *Pat. testâ ovatâ, anticè subattenuatâ, apice acutè elevato et anticè inclinato, radiatim costatâ, costis obtusis, distantibus, subindistinctis, striis rugosis concentricis densè decussatis; virescente-luteâ, maculis nigris acutè angulatis ornatâ, intus virescente-albâ, margine maculatâ.*

THE ZEBRA-MARKED LIMPET. Shell ovate, slightly attenuated in front, apex sharply raised and inclined anteriorly, radiately ribbed, ribs obtuse, distant, rather indistinct, densely decussated with close-set rough striæ; greenish-yellow, ornamented with sharply angled black spots, interior greenish-white, spotted at the margin.

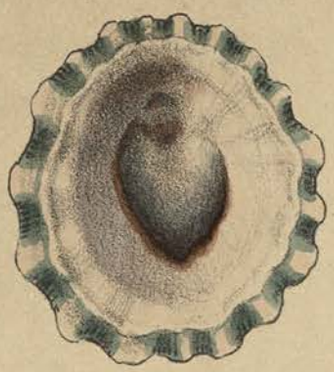
LESSON, Zool. Voy. de la Coquille, p. 417.

Lottia zebrina, Gray.

Patella variabilis pars, Sowerby.

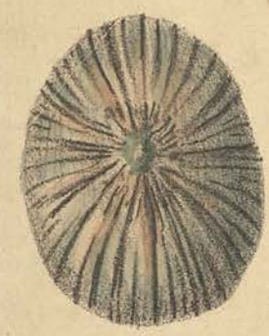
Hab., Valparaiso.

This and *P. variabilis* are supposed to be the same species in different states; they are, however, most distinct in form, and detail of sculpture.



66 *a*

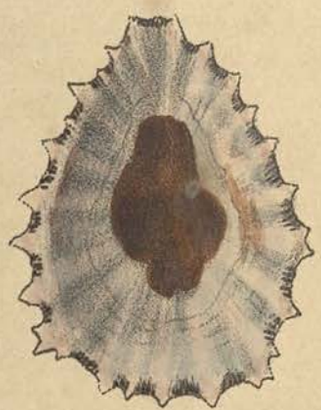
67 *a*



67 *b*

66 *b*

68 *a*



68 *b*

66 *c*

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXVI.

Species 66. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA ARAUCANA. *Pat. testâ ovatâ, nunc depressâ, nunc elevatiusculâ et anticè acutè inclinatâ, radiatim costatâ, costis rudibus, subtubulosis; lutescente-albâ, costarum interstitiis intensè viridi reticulatis, intus livido-albâ, medio nigro-castaneâ, margine virescente, subfimbriato.*

THE ARAUCANIAN LIMPET. Shell ovate, sometimes depressed, sometimes a little raised and sharply inclined anteriorly, radiately ribbed, ribs rude, subtubulous; yellowish-white, interstices between the ribs reticulated with dark green, interior livid white, dark chestnut in the middle, margin greenish, slightly furbelowed.

D'ORBIGNY, Voy. dans l'Amérique Méridionale, p. 482. pl. 65. f. 4 to 6.

Hab. Valparaiso.

It may be doubted whether this is not also a variety of Mr. Sowerby's extremely variable *P. variabilis*, represented in the preceding plate.

Species 67. (Mus. Cuming.)

PATELLA VESPERTINA. *Pat. testâ ovatâ, rotundato-convexâ, subdepressâ, densè irregulariter liratâ et sulcatâ, liris lævibus vel obsoletè nodosis, apice plano-obtuso; virescente, radiis lineisque viridibus nitidè pictâ, intus cærulescente-albâ, medio lutescente-fusco tinctâ, margine subangusto.*

THE EVENING-RAYED LIMPET. Shell ovate, rotundately convex, rather depressed, densely irregularly ridged and grooved, ridges smooth or obsoletely nodose, apex flatly obtuse; greenish, neatly painted with green rays and lines, interior bluish-white, tinged with yellowish-brown in the middle, margin rather narrow.

Hab. Panama and Gulf of California.

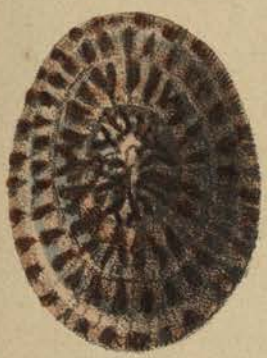
A rather depressed rotundately convex species, of a sea-green hue, neatly painted with green rays and lines.

Fig. 68. (Mus. Cuming.)

This shell proves to be an acuminately spoon-shaped form of *P. pica*, represented at Plate XIX. Fig. 45.

January, 1855.

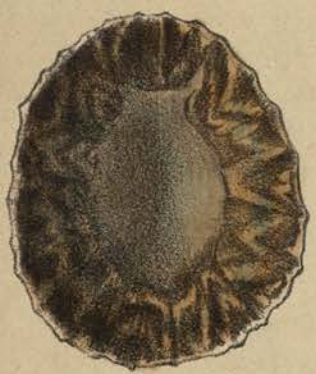
69 a



70 a

70 b

69 b



71 a

71 b

69 c

PATELLA.

PLATE XXVII.

Species 69. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA TOREUMA. *Pat. testâ oblongo-ovatâ, anticè subattenuatâ, depressissimâ, apice valdè antico, densè radiatim liratâ, liris alternatim majoribus, subcrenatis; virescente aut luteâ, purpureo et opaco-albo radiatim variegatâ et punctatâ, intus plus minus iridescente-albâ, subpellucidâ.*

THE CHASED LIMPET. Shell oblong-ovate, slightly attenuated in front, very depressed, apex very anterior, densely radiately ridged, ridges alternately larger, subcrenated; greenish or yellowish, radiately variegated and dotted with purple and opake-white, interior more or less iridescent-white, subtransparent.

Hab. Monterey, California; Hartweg.

A beautifully painted and neatly sculptured shell, of attenuated oblong form, very depressed, with the apex inclined very anteriorly.

Species 70. (Mus. Cuming.)

PATELLA TESTUDINALIS. *Pat. testâ ovatâ, suboblongâ, acutè elevatâ, lateraliter subcompressâ, undique tenuissimè cancellato-striatâ; virescente-albâ vel luteâ, castaneo et nigro reticulato-maculatâ, intus cærulescente-albâ, margine latimaculatâ, medio castaneo-tinctâ.*

THE LITTLE TORTOISE-SHELL LIMPET. Shell ovate, rather oblong, sharply raised, laterally slightly compressed, everywhere finely cancellately striated; greenish-white or yellow, reticulately mottled with chestnut and black, interior bluish-white, broadly mottled at the margin, chestnut-stained in the middle.

MULLER, Prodromus Zool. Dan. p. 237.
Patella tessellata, Müller.
Patella testudinaria Grœnlandica, Chemnitz.
Patella Clealandi, Sowerby.
Patella amœna, Say.
Patella clypeus, Brown.
Lottia testudinalis, Forbes.
Patelloides testudinalia, Lea.
Acmæa testudinalis, Hanley.
Patelloidea amœna, Couthony.
Lottia Antillarum, Sowerby.

Hab. Northern Seas.

This little tortoise-shell painted species prevails throughout the northern European and American Seas, usually much smaller, however, than the specimen here figured, which is from East Port Maine, United States. It is found plentifully in Greenland, and was dredged abundantly in Wellington Channel by Captain Sir E. Belcher, during the recent Arctic searching expedition of the Assistance and Resolute.

Species 71. (Mus. Cuming.)

PATELLA EARLII. *Pat. testâ rotundato-ovatâ, anticè subattenuatâ, convexo-elevatâ, apice anticè inclinato, radiatim liratâ, liris parvis, perpaucis, distantibus, interstitiis irregulariter elevato-striatis; virescente, olivaceo-nigricante latè undato-variegatâ, intus pellucido-iridescente, medio lacteâ.*

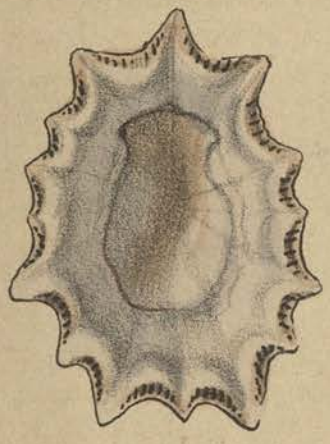
EARL'S LIMPET. Shell rotundately ovate, slightly attenuated in front, convexly raised, apex inclined anteriorly, radiately ridged, ridges small, very few and distant, with the interstices irregularly elevately striated; pale green, broadly wave-variegated with olive-black, interior transparently iridescent, milk-white in the middle.

Hab. New Zealand; Earl.

This is of the same local typical form as *P. redimiculum*, but peculiar in its high rounded growth and broad waved painting.

---

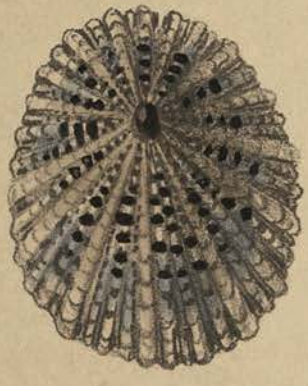
72 a



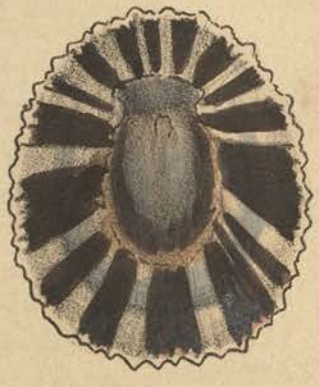
72 b

72 c

73 a



74 a



74 b

73 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXVIII.

Species 72. (Fig. *a*, *b*, *c*, Mus. Cuming.)

PATELLA SACCHARINA. *Pat. testâ ovatâ, acutè angulato-convexâ, crassiusculâ, radiatim costatâ, costis fortibus, compressis, variis, plerumque septem majoribus, interstitiis radiatim liratis; albâ, inter costas maculis curvis nigris plus minus densè tinctâ, intus albâ, nigro-marginatâ.*

THE SACCHARINE LIMPET. Shell ovate, sharply angularly convex, rather thick, radiately ribbed, ribs strong, compressed, various, generally seven principal ones, interstices radiately ridged; white, more or less thickly painted between the ribs, with curved black blotches, interior white, black-edged.

LINNÆUS, Syst. Nat. (12th edit.) p. 1258.

Astrolepas saccharina, Argenville.

Astrolepas tigerina, Martini.

Hab. Philippine Islands; Cuming.

A solid strongly ribbed white shell, painted more or less densely with very characteristic crescent-shaped black blotches in the interstices.

Species 73. (Mus. Cuming.)

PATELLA FUEGIENSIS. *Pat. testâ ovali, tenuiculâ, semipellucidâ, subcompresso-elevatâ, apice rotundato, anticè inclinato, radiatim liratâ, liris tenuibus, numerosis, striis concentricis densè decussatis; virescente, castaneo-fuscescente plus minus tinctâ et maculatâ, apice æneo, intus iridescente-æneâ, radiatim sulcatâ, sulcis interdum partim obsoletis.*

THE FUEGO LIMPET. Shell oval, rather thin, semitransparent, rather compressly raised, apex rounded, inclined anteriorly, radiately ridged, ridges thin, numerous, densely crossed with concentric striæ; greenish, more or less stained and blotched with chestnut-brown, apex bronze, interior iridescent-bronze, radiately grooved, grooves sometimes partially obsolete.

Hab. Tierra del Fuego. Falkland Islands.

A delicate subpellucid bronzed species, elegantly many-ridged, of a pale greenish texture, partially, and sometimes almost entirely, stained and blotched with reddish-chestnut.

Species 74. (Mus. Cuming.)

PATELLA MARGARITARIA. *Pat. testâ rotundato-ovatâ, subattenuatâ, subacutè erectè elevatâ, anticè inclinatâ, apice obtusâ, radiatim costatâ et liratâ, costis rudibus, tumidiusculis, nodosis, interstitiis muricatis; costis sordidè albidis, interstitiis purpureo-nigris, muricibus opaco-albis, intus corneâ, vividè purpureo-radiatâ.*

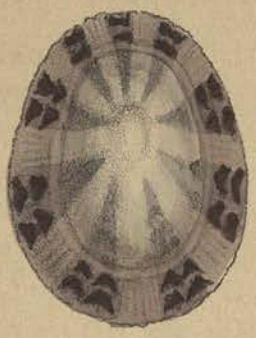
THE PEARL-SET LIMPET. Shell rotundately ovate, interiorly a little attenuated, rather sharply erectly raised, inclined anteriorly, obtuse at the apex, radiately ridged and ribbed, ribs rude, rather swollen, nodose, interstices prickly; ribs dull white, interstices purple-black, prickles opake-white, interior horny; richly purple-rayed.

CHEMNITZ, Conch. Cab. vol. xi. p. 180. pl. 197. f. 1914, 1915.

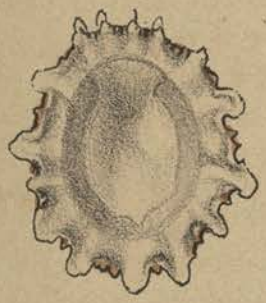
Patella ornata, Dillwyn.

Hab. New Zealand; Chemnitz.

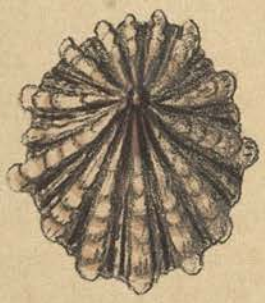
A very distinct species, rayed with light rude nodose ribs, the interstices being dark purple-black, set with characteristic opake-white prickles.



75 a

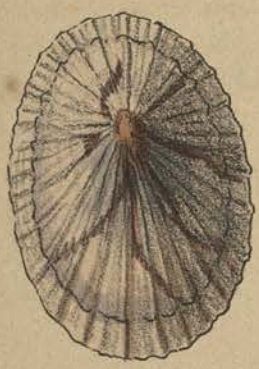


76 a



76 b

75 b

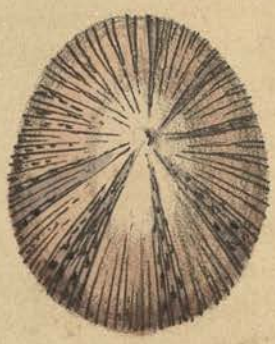


77 a

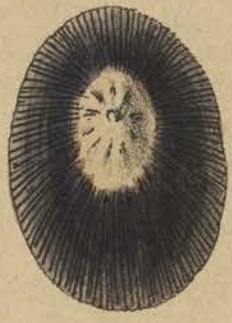
77 b

78 a

79 a



79 b



78 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXIX.

Species 75. (Mus. Cuming.)

PATELLA LIVESCENS. *Pat. testâ ovatâ, tenuiculâ, depresso-convexâ, apice subacutè mucronatâ, radiatim densè granulato-striatâ, striis subundulatis, apice subantico; pellucido-livescente, nigricante-purpureo radiatâ, radiis interdum obliquè maculatis, intus iridescente-argenteâ, plus minus pellucidâ.*

THE BLUE-TINGED LIMPET. Shell ovate, rather thin, depressly convex, rather sharply pointed at the apex, radiately densely granulately striated, striæ slightly waved, apex rather anterior; pellucid blue-green, rayed with blackish-purple, rays sometimes broken up into opake blotches, interior iridescent-silvery, more or less transparent.

Hab. Mazatlan, Gulf of California.

A very delicate subpellucid greenish-blue shell, painted with dark purple rays, which show through into the interior. The sculpture consists of numerous slightly waved granuled lines.

Species 76. (Mus. Cuming.)

PATELLA SPECTRUM. *Pat. testâ ovatâ, subdepressâ, anticè subacutè acuminatâ, ætate crassissimâ, radiatim costatâ, costis crassis, rudibus, compressè squamatis, interstitiis rugoso-striatis; ferrugineo-albâ, squamis in testâ juniore nigris, intus albâ.*

THE SPECTRE LIMPET. Shell ovate, rather depressed, anteriorly rather sharply acuminated, very thick with age, radiately ribbed, ribs thick, rude, compressly scaled, interstices roughly striated; rust-white, scales in the young shell black, interior white.

NUTTALL, Jay's Catalogue of Shells, p. 39.

Hab. Upper California.

A very characteristic rough-ribbed shell, the ribs being armed with scales, which, in the young shell, are strikingly cinder-black.

Species 77. (Mus. Cuming.)

PATELLA INRADIATA. *Pat. testâ ovatâ, elevato-convexâ, lateraliter subcompressâ, undique subobsoletè radiato-clathratâ; albidâ, lineis perpaucis rufis obscurè bifariam radiatâ, lineis irregularibus, distortis, intus albâ, lineis rufis distinctis, medio castaneâ.*

THE IN-RAYED LIMPET. Shell ovate, elevately convex, somewhat compressed at the sides, everywhere rather obsoletely radiately latticed; whitish, obscurely rayed with a very few red lines in pairs, lines irregular, distorted, interior white, red lines distinct, chestnut in the middle.

Hab. ——?

A deep cup-like opake-white shell, obscurely latticed throughout, irregularly rayed with a few straggling red lines, which are most distinctly seen in the interior.

Species 78. (Mus. Cuming.)

PATELLA DISCORS. *Pat. testâ subquadrato-ovatâ, depressâ, fortiter elevato-lineatâ, circa apicem tuberculato-corrugatâ; albidâ, lineis intensè cæruleo-nigris, intus albâ, margine nigro-lineato, latiusculo, testâ juniore extus virescente tinctâ.*

THE DIFFERING LIMPET. Shell subquadrately ovate, depressed, strongly elevately lined, round the apex tubercularly crumpled; whitish, lines strongly blue-black, interior white, border black-lineated, rather broad, young shell green-tinged without.

PHILIPPI, Abbild. und Besch. Conch. pl. 2. f. 6.

Hab. Mazatlan, Gulf of California; Lieut. Shipley.

A depressly convex shell, whitish and peculiarly crumpled round the apex, then densely sculptured with raised blue-black lines.

Species 79. (Mus. Cuming.)

PATELLA OPEA. *Pat. testâ ovatâ, anticè attenuatâ, subdepressâ, radiatim tenuiliratâ, liris granulatis, versus apicem obsoletis; albidâ, interstitiis versus marginem nigro-fuscis, obscurè sex-radiatâ, intus albâ, margine latiusculo, nitidè lineato.*

THE EYEBROW LIMPET. Shell ovate, attenuated in front, rather depressed, radiately finely ridged, ridges granuled, obsolete towards the apex; whitish, interstices towards the margin black-brown, obscurely six-rayed, interior white, margin rather broad, neatly lineated.

NUTTALL, Jay's Catalogue of Shells, p. 38.

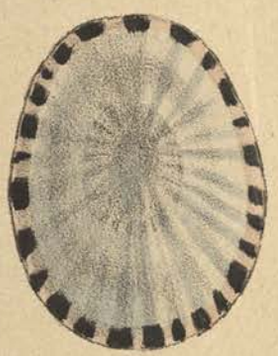
Hab. Sandwich Islands.

A rather depressed shell, finely granulately ridged, the interstices being coloured towards the margin with rust-black.

---

80 a

81 a



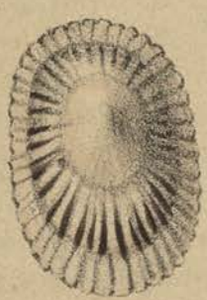
81 b

80 b

82 a

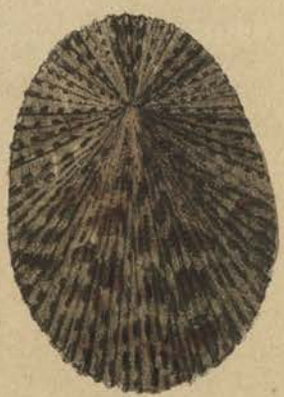
82 b

83 a



84 a

84 b



83 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXX.

Species 80. (Mus. Cuming.)

PATELLA ASTER. *Pat. testâ ovatâ, anticè subattenuatâ, subacutè depresso-conicâ, anticè inclinatâ, radiatim densè striatâ, striis elevatis, obtusè granulatis, subundulatis; nigro-purpureâ, luteo-albo radiatâ, radiis acutis, perdistinctis, intus iridescente-corneâ, subpellucidâ.*

THE STAR LIMPET. Shell ovate, a little attenuated in front, rather sharply depressly conical, inclined anteriorly, radiately densely striated, striæ raised, obtusely granuled, a little waved; blackish-purple, rayed with yellowish-white, rays sharp, very distinct, interior iridescent-horny, subtransparent.

Hab. —— ?

Chiefly characterized by the very decided outline of the rays.

Species 81. (Mus. Cuming.)

PATELLA NUTTALLIANA. *Pat. testâ ovatâ, acuminato-convexâ, apice subobtusâ, rudè striatâ, striis hic illic obsoletis; lutescente-albâ, strigis irregularibus ustulato-nigris vividè radiatâ, intus albâ, margine nigro maculatâ.*

NUTTALL'S LIMPET. Shell ovate, acuminately convex, rather obtuse at the apex, rudely striated, striæ here and there obsolete; yellowish-white, rayed with vivid burnt-black irregular streaks, interior white, margin blotched with black.

Hab. Oregon.

An erect acuminately convex shell, rather compressed at the sides, painted throughout with very striking zebra-like burnt-black stripes.

Species 82. (Mus. Cuming.)

PATELLA LANX. *Pat. testâ hexagono-ovatâ, anticè attenuatâ, subplano-depressâ, rudè angulatâ et striatâ, angulis obtusis; nigrâ, ad angulos albicante, intus cæruleascente, medio nigricante-castaneâ, lineatâ, margine nigrâ.*

THE PLATTER LIMPET. Shell hexagonally ovate, attenuated in front, rather flatly depressed, rudely angled and striated, angles obtuse; black, whitish at the angles, interior bluish, blackish-chestnut in the middle, lineated, black at the margin.

Hab. Japan.

A depressed roughly angled shell, painted black, except on the angles and in some of the interstices.

Species 83. (Mus. Cuming.)

PATELLA AMUSSITATA. *Pat. testâ ovatâ, anticè subattenuatâ, convexo-depressâ, apice subantico, densè striatâ, striis obtusè elevatis, subscabrosis, paululum undulatis; virescente vel olivaceo-luteâ, purpureo obscurè maculatâ et radiatâ, et indistinctè albipunctatâ, intus iridescente-corneâ, subpellucidâ.*

THE MOSAIC LIMPET. Shell ovate, a little attenuated in front, convexly depressed, apex rather anterior, densely striated, striæ obtusely raised, subscabrous, a little waved; greenish or olive-yellow, obscurely spotted and rayed with purple, and indistinctly white-dotted, interior iridescent-horny, subpellucid.

Hab. China and the Philippine Islands.

A depressly convex subhorny shell, densely scabrously striated, olive-green or yellowish, freckled with purple and white dots.

Species 84. (Mus. Cuming.)

PATELLA NIGRO-SULCATA. *Pat. testâ ovatâ, solidiusculâ, radiatim sulcatâ, sulcis angustis, subdistantibus; rudè cretaceâ, albâ, sulcis plus minus nigro-tinctis, intus lutescente-albâ, margine obscurè lineato.*

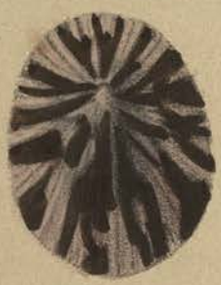
THE BLACK-GROOVED LIMPET. Shell ovate, rather solid, radiately grooved, grooves narrow, rather distant; rough chalk-white, grooves more or less black, interior yellowish-white, border faintly lineated.

Hab. —— ?

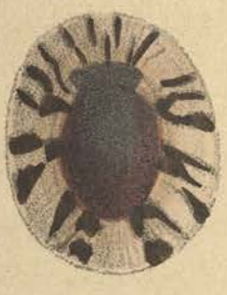
A peculiar chalk-white species, linearly grooved throughout, the grooves being narrow, rather impressed, and black-stained.

---

85 a

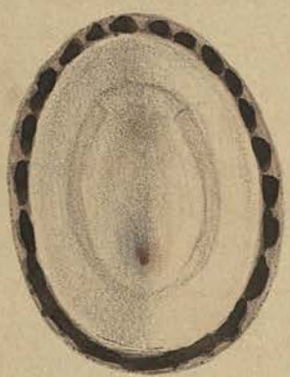


86 a



86 b

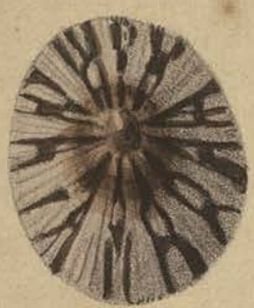
85 b



87 a

87 b

88 a



89 a

89 b

88 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXXI.

Species 85. (Mus. Cuming.)

PATELLA DEPSTA. *Pat. testâ ovatâ, tenui, subdepressâ, medio elevatâ, ad latera subcompressâ, apice acuto, anticè minutè uncinato, radiatim striatâ, striis prope marginem elevatis; rufo-castaneâ, virescente-luteo interdum obscurè radiatâ, intus livido-corneâ.*

THE TANNED LIMPET. Shell ovate, thin, rather depressed, raised in the middle, rather compressed at the sides, apex sharp, anteriorly minutely hooked, radiately striated, striæ raised towards the margin; reddish-chestnut, sometimes faintly rayed with greenish-yellow, interior livid-horny.

Hab. Macao and Island of St. Paul.

A nearly smooth reddish-chestnut shell, with a sharp minutely hooked apex.

Species 86. (Mus. Cuming.)

PATELLA LUZONICA. *Pat. testâ rotundato-ovatâ, subdepressâ, radiatim tenuiliratâ, liris granulatis, apice acuto, antico, minutè uncinato; pellucido-luteâ, subcorneâ, maculis grandibus nigris promiscuè inquinatâ, intus pellucidâ, subiridescente, medio intensè castaneâ.*

THE LUZON LIMPET. Shell rotundately ovate, rather depressed, radiately finely ridged, ridges granuled, apex sharp, anterior, minutely hooked; transparent-yellow, rather horny, promiscuously stained with large black blotches, interior transparent, subiridescent, dark chestnut in the middle.

Hab. Island of Luzon, Philippines; Cuming.

Of bright transparent-yellow substance, stained with large promiscuous blotches of black, characteristic in pattern and distribution.

Species 87. (Mus. Cuming.)

PATELLA VERRICULATA. *Pat. testâ ovatâ, convexâ, interdum subdepressâ, apice subantico, obtuso, densè tenuistriatâ, striis paululum undulatis; lutescente aut virescente, fusco-nigro plus minus densè strigatâ et reticulatâ, intus cærulescente-albâ, margine latiusculo, nigro-maculato.*

THE NETTED LIMPET. Shell ovate, convex, sometimes rather depressed, apex subanterior, obtuse, densely finely striated, striæ a little waved; yellowish or greenish, more or less thickly streaked and netted with brown-black, interior bluish-white, border rather broad, black-spotted.

Hab. California.

The characteristic painting of this species is a densely woven brown-black network, which, except in the vicinity of the apex, is more or less filled up, or broken into streaks.

Species 88. (Mus. Cuming.)

PATELLA USTULATA. *Pat. testâ subquadrato-ovatâ, anticè paululum attenuatâ, posticè convexo-depressâ, anticè tumido-umbonatâ, apice obtuso, radiatim elevato-striatâ, striis prope marginem scabrosis; ustulato-rufâ, fasciis angustis albis subdistantibus nitidè radiatâ, striis prope marginem plus minus nigris, intus albâ.*

THE SCORCHED LIMPET. Shell somewhat squarely ovate, a little attenuated in front, posteriorly convexly depressed, anteriorly tumidly umbonated, apex obtuse, radiately elevately striated, striæ scabrous next the margin; burnt-red, neatly rayed with rather distant narrow white bands, striæ more or less black next the margin, interior white.

Hab. ——?

Nothing is known of the locality of this very characteristic species, fringed, as it were, with burnt-brown and black colouring, interrupted with a regular series of distinct narrow white bands.

Species 89. (Mus. Cuming.)

PATELLA SCALATA. *Pat. testâ ovatâ, subacutè convexâ, apice vix centrali, radiatim obtusè striatâ, et hic illic lineari-sulcatâ; livido-albicante, fasciis nigris peculiariter bifurcatis aut diagonaliter lineari-strigatis radiatâ, intus subpellucido-corneâ.*

THE LADDERED LIMPET. Shell ovate, rather sharply convex, apex scarcely central, radiately obtusely striated, and here and there linearly grooved; livid-white, rayed with black bands, peculiarly bi-forked, or diagonally linearly streaked, interior subtransparent horny.

Hab. Philippine Islands; Cuming.

Distinguished by a characteristic pattern of black diagonally blotched and barred rays, upon a livid-white ground.

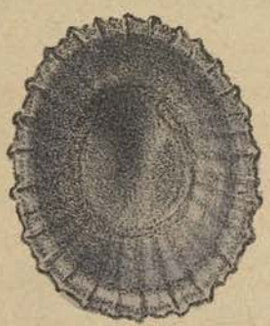
---

90 a

91 a

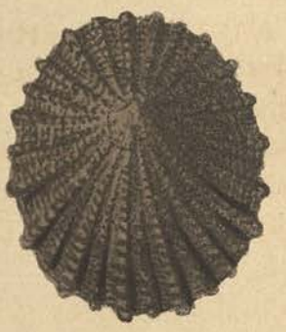
91 b

90 b



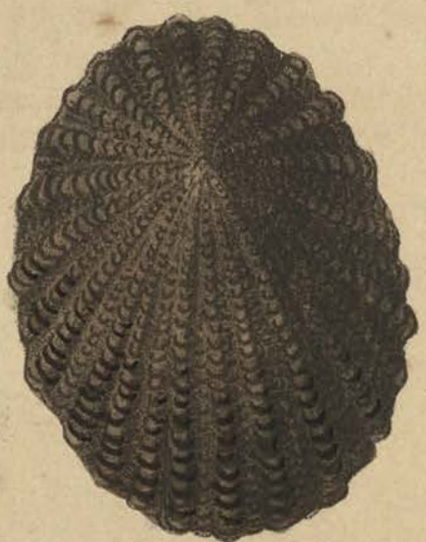
92 a

93 a

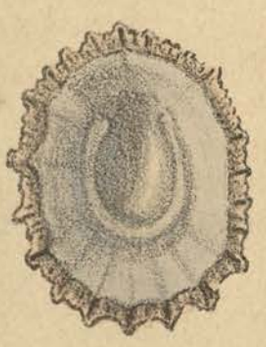


92 b

94 a



93 b



94 b

Sowerby del. et lith.

Vincent Brooks Imp

PATELLA.

PLATE XXXII.

Species 90. (Mus. Cuming.)

PATELLA ACULEATA. *Pat. testâ suboblongo-ovatâ, tumido-conoideâ, apice antico, radiatim costatâ, costis acutè compressis, aculeato-squamatis; albâ, aurantio-ferrugineo tinctâ, intus albicante, aurantio tinctâ.*

THE PRICKLY LIMPET. Shell somewhat oblong-ovate, tumidly conoid, apex anterior, radiately ribbed, ribs sharply compressed, prickly-scaled; white, tinged with orange-rust, interior whitish, orange-tinged.

Hab. —— ?

A deeply convex shell, rayed throughout with very characteristic prickly-scaled narrowly compressed ribs.

Species 91. (Mus. Cuming.)

PATELLA GUTTATA. *Pat. testâ orbiculato-ovatâ, subdepressâ, apice antico, radiatim liratâ, liris in nodulis irregularibus disruptis; albidâ, plus minus nigro-tinctâ, nodulis intensè nigris, intus cærulescente, medio rufescente.*

THE DROP-MARKED LIMPET. Shell orbicularly ovate, rather depressed, apex anterior, radiately ridged, ridges broken up into irregular nodules; whitish, more or less stained with black, nodules intense black, interior bluish, reddish in the middle.

D'ORBIGNY, Moll. des Isles Canaries, vol. ii. p. 98. pl. 7. f. 13, 15.

Hab. Teneriffe, Canaries.

The radiating ridges of black nodules in this species, constitute a very characteristic feature.

Species 92. (Mus. Cuming.)

PATELLA DIRA. *Pat. testâ ovatâ, erecto-conoideâ, densè radiatim costatâ et liratâ, costis lirisque in verruculis creberrimè disruptis; intensè cæruleo-atrâ, intus subiridescente.*

THE DISMAL LIMPET. Shell ovate, erectly conoid, densely radiately ridged and ribbed, ribs and ridges very closely broken up into small warts; dark blue-black, subiridescent in the interior.

Hab. —— ?

Although a similarity prevails between the figures of this and the preceding species, they are very different; *P. dira* being of deep erectly conical form, rayed throughout with close-set ribs and ridges, crenated with small tumid warts.

Species 93. (Mus. Cuming.)

PATELLA IMBRICATA. *Pat. testâ ovatâ, tumido-convexâ, apice antico, obtuso, radiatim multicostatâ, costis confertis, vix elevatis, undique densè acutè imbricatis; intensè cæruleo-nigrâ, intus plumbeo-cæruleâ, medio aurantio-ferrugineâ.*

THE TILED LIMPET. Shell ovate, tumidly convex, apex anterior, obtuse, radiately many-ridged, ribs close-set, scarcely raised, everywhere densely sharply imbricated; dark blue-black, interior lead-blue, orange-rust in the middle.

Hab. New Zealand.

Of very regular tumidly convex growth, beautifully densely imbricated throughout.

Species 94. (Mus. Cuming.)

PATELLA SQUAMIFERA. *Pat. testâ ovatâ, subdepressâ, crassiusculâ, apice fere centrali, radiatim rugosè costatâ et liratâ, costis lirisque irregulariter rudè squamatis; albidâ, cinereo et nigro tinctâ, intus cærulescente-albâ.*

THE SCALY LIMPET. Shell ovate, somewhat depressed, rather thick, apex nearly central, radiately roughly ribbed and ridged, ribs and ridges irregularly rudely scaled; whitish, tinged with ash and black, interior bluish-white.

Hab. —— ?

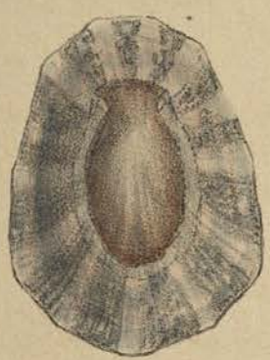
This is a solid ash-coloured shell, roughly sculptured throughout with irregular scaly ribs and ridges.

95a

96a

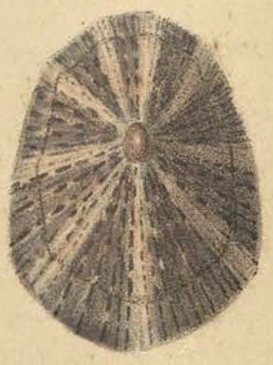
96b

95b



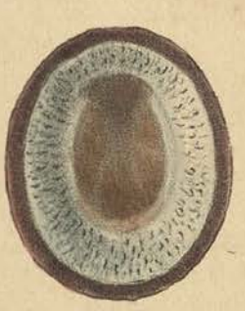
97a

98a

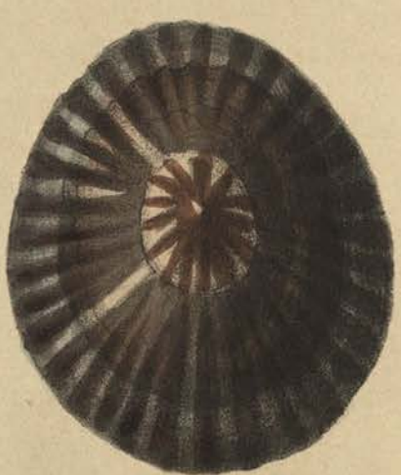


97b

99a



99b



98b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXXIII.

Species 95. (Mus. Cuming.)

PATELLA SANGUINALIS. *Pat. testâ suboblongo-ovatâ, tenui, pellucidâ, lateraliter leviter compressâ, apice subacuto, antico, radiatim densè irregulariter striatâ; pallidè corneâ, lineis tenuibus pallidè sanguineis undique undato-reticulatâ.*

THE BLOOD-TINGED LIMPET. Shell suboblong-ovate, thin, transparent, slightly compressed at the sides, apex rather sharp, anterior, radiately densely irregularly striated; pale horny, everywhere wave-reticulated with pale red thin lines.

Hab. —— ?

Of thin subtransparent horny texture, and rather compressly ovate form, delicately painted throughout with a network of pale red waved lines.

Species 96. (Mus. Cuming.)

PATELLA STELLULARIA. *Pat. testâ ovatâ, anticè vix attenuatâ, subconvexâ, radiatim noduloso-liratâ; castaneo-brunneâ, stellâ albâ ad apicem, intus pellucidâ, subiridescente.*

THE STARRED LIMPET. Shell ovate, scarcely attenuated in front, slightly convex, radiately nodosely ridged; chestnut-brown, with a white star on the apex, interior pellucid, subiridescent.

QUOY and GAIMARD, Voyage de l'Astrolabe, vol. iii. p. 347. pl. 70. f. 18 and 20.

Hab. New Zealand.

Readily distinguished by a rather large irregular star-pattern of white upon a chestnut-brown ground.

Species 97. (Mus. Cuming.)

PATELLA ARTICULATA. *Pat. testâ hexagono-ovatâ, anticè attenuatâ, subplano-depressâ, undique radiatim liratâ et striatâ; olivaceâ, radiis lutescentibus ad angulos, liris purpureo-nigro et albo articulatis, intus subargenteâ.*

THE ARTICULATED LIMPET. Shell hexagonally ovate, attenuated in front, rather flatly depressed, everywhere radiately ridged and striated; olive, with yellow rays at the angles, ridges articulated with purple-black and white, interior rather silvery.

Hab. Island of Ticao, Philippines.

A rather compressly flattened species, divided on the surface into seven to nine subangular areas, rayed with neatly articulated ridges.

Species 98. (Mus. Cuming.)

PATELLA CHILOENSIS. *Pat. testâ rotundato-ovatâ, anticè subacuminatâ, acutè conoideâ, elevatâ, apice subcentrali, radiatim costatâ, costis retusis, subobsoletis; fumeo-nigro irregulariter tinctâ et strigatâ, interstitiis albidis perpaucis promiscuis, intus subargenteâ.*

THE CHILOE LIMPET. Shell rotundately ovate, a little acuminated in front, sharply conoid, elevated, apex nearly central, radiately ribbed, ribs worn, nearly obsolete; irregularly stained and streaked with smoky-black, whitish, interstices very few and promiscuous, interior a little silvery.

Hab. Island of Chiloe; Cuming.

A characteristic deeply conoid shell, almost entirely smoky-black, rust-tinged towards the apex, with white appearing promiscuously at remote intervals.

Species 99. (Mus. Cuming.)

PATELLA STRIATA. *Pat. testâ rotundato-ovatâ, subdepressâ, apice valdè antico, acuto, radiatim densè liratâ, liris circa apicem subobsoletis; virescente-olivaceâ, intus vividè virescente, nucleo fuscescente, margine latiusculo, nigricante-olivaceo.*

THE STRIATED LIMPET. Shell rotundately ovate, rather depressed, apex very anterior, sharp, radiately densely ridged, ridges nearly obsolete about the apex; greenish-olive, interior bright green, nucleus light brown, border rather broad, blackish-olive.

Patelloidea striata, Quoy and Gaimard, Voyage de l'Astrolabe, Moll. pl. 71. f. 8–11.

Hab. Galapagos Islands; Cuming.

An obscure greenish-olive species, with mostly a bright green interior and rather broad dark olive border. The surface, which is rather depressed, is densely radiately elevately striated, but the striæ are only faintly developed round the apex.

100a

101a

101b

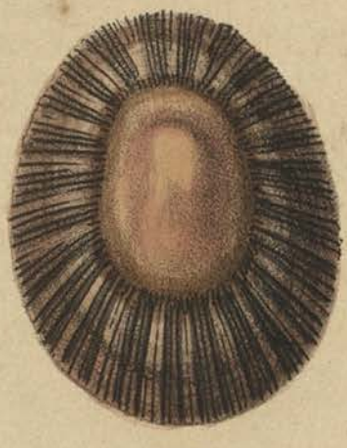
100b

102a

103a

102b

104a



103b

104b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXXIV.

Species 100. (Mus. Cuming.)

PATELLA LACINIATA. *Pat. testâ oblongo-ovatâ, subacutè convexâ, lateraliter subcompressâ; radiatim densè elevato-striatâ; albidâ, lineis numerosis tenuibus rufis indiquè promiscuè reticulato-radiatâ, reticulo circa apicem interruptè pervio, intus cærulescente-albâ.*

THE FRINGED LIMPET. Shell oblong-ovate, rather sharply convex, laterally slightly compressed, radiately densely elevately striated; whitish, reticulately rayed everywhere promiscuously with numerous fine red lines; network round the apex interruptedly open, interior bluish-white.

Hab. Australia.

Distinguished by a densely pencilled elongated network of red-brown lines, which is more or less interruptedly open around the apex.

Species 101. (Mus. Cuming.)

PATELLA LEUCOPHÆA. *Pat. testâ rotundato-ovatâ, depressiusculâ, medio subacutè elevatâ, radiatim obscurè costatâ et striatâ, costis irregularibus, fere obsoletis; nigricante-viridi, maculis albis prope marginem obscurè biseriatim tessellatâ, intus virescente-albâ, medio intensè castaneâ.*

THE WHITE-SPOTTED LIMPET. Shell rotundately ovate, rather depressed, somewhat sharply raised in the middle, radiately obscurely ribbed and striated, ribs irregular, almost obsolete; very dark green, obscurely tessellated near the margin with two rows of white blotches, interior greenish-white, dark chestnut in the middle.

NUTTALL, Jay's Catalogue of Shells, p. 38.

Hab. Upper California.

A very dark greenish shell, encircled near the margin with two rows of faint whitish blotches.

Species 102. (Mus. Cuming.)

PATELLA PENICILLATA. *Pat. testâ ovatâ, subplano-convexâ, radiatim rugoso-liratâ et sulcatâ, plerumque multo erosâ, apice parvo, acuto, antico; albidâ, sulcis intensè fusco penicillatis, intus albidâ, fusco medio et ad marginem lineatâ.*

THE PENCILLED LIMPET. Shell ovate, rather flatly convex, radiately roughly ridged and grooved, generally much eroded, apex small, sharp, anterior; whitish, grooves pencilled with dark brown, interior whitish, lineated in the middle and at the edge with brown.

Hab. Valparaiso.

A rather flatly convex eroded white species, pencilled in the radiating grooves with interrupted brown.

Species 103. (Mus. Cuming.)

PATELLA CANESCENS. *Pat. testâ ovatâ, anticè subattenuatâ, convexâ, radiatim rugoso-liratâ et sulcatâ; liris promiscuè albis et nigris, intus subpellucidâ.*

THE GREY-HAIRED LIMPET. Shell ovate, a little attenuated in front, radiately rugosely ridged and grooved; ridges promiscuously black and white, interior subpellucid.

Hab. —— ?

This shell is much worn round the apex, but a very characteristic black and white sculpture covers the remaining surface.

Species 104. (Mus. Cuming.)

PATELLA TENERA. *Pat. testâ ovatâ, tenuiculâ, depressâ, apice parvo, acuto, antico, radiatim strictâ, striis elevatis, subfuniculatis, striis minutis concentricis, cancellatis; lutescente, nigricante-viridi promiscuè maculatâ et variegatâ, intus cærulescente, subpellucidâ.*

THE THIN LIMPET. Shell ovate, rather thin, depressed, apex small, sharp, anterior, radiately striated, striæ raised, somewhat corded, cancellated with minute concentric striæ; yellowish, promiscuously spotted and variegated with blackish-green, interior bluish, subtransparent.

C. B. ADAMS, Contributions to Conchology.

Hab. —— ?

A depressed yellowish shell, prettily variegated and blotched with blackish-green, which is seen through in the interior.

105a

106a

106b

105b

107a

107b

108a

109a

109b

108b

PATELLA.

PLATE XXXV.

Species 105. (Mus. Cuming.)

PATELLA FUNGUS. *Pat. testâ ovatâ, depresso-conoideâ, apice elevato, subcentrali, radiatim densè costatâ et liratâ, costis lirisque angustis, parvis, undique tenui-nodulatis; sordidè cinereâ, circa apicem et prope marginem rufescente-fusco punctatâ, nodulis albicantibus, intus semipellucido-iridescente.*

THE FUNGUS LIMPET. Shell ovate, depressly conoid, apex raised, subcentral, radiately densely ribbed and ridged, ribs and ridges narrow, small, everywhere finely noduled; dull ash, dotted round the apex and near the margin with reddish-brown, with nodules whitish, interior semi-transparent, iridescent.

Tectura fungus, Meuschen.

Hab. West Indies.

A dull ash depressly conoid shell, densely rayed with finely noduled ribs and ridges, sparingly marked with reddish-brown dots, which are seen most distinctly in the interior of the shell.

Species 106. (Mus. Cuming.)

PATELLA FLOCCATA. *Pat. testâ ovatâ, convexo-depressâ, apice anticè inclinato, planato, radiatim tenuiliratâ, liris filosis, subundatis, striis concentricis eximiè crenulatis; olivaceo-viridi, floccis albis profusè aspersâ, intus vividè cæruleo-viridi.*

THE SNOW-FLAKE LIMPET. Shell ovate, convexly depressed, apex inclined anteriorly, flattened, radiately finely ridged, ridges thread-like, slightly waved, delicately crenulated with concentric striæ; olive-green, profusely sprinkled with white flakes, interior vivid blue-green.

Hab. New Zealand; Earl.

A delicate rather compressly convex species, sculptured with fine thread-like slightly waved ridges, and profusely radiately dashed with white flakes upon a dark olive-green ground.

Species 107. (Mus. Cuming.)

PATELLA UMBONATA. *Pat. testâ globoso-convexâ, apice omninò antico, acutè uncinato, radiatim liratâ, liris paucis, irregularibus, obtusè crenatis; cinereo-nigrâ, punctis albis impressis sculpturatâ, punctis magis numerosis versus marginem, intus cærulescente-albâ, medio castaneâ.*

THE UMBOED LIMPET. Shell globosely convex, apex altogether anterior, sharply hooked, radiately ridged, ridges few, irregular, obtusely crenated; ash-black, sculptured with white impressed punctures, punctures more numerous towards the margin, interior bluish-white, chestnut in the middle.

NUTTALL, Jay's Catalogue of Shells, p. 37.

Hab. Upper California.

A globosely convex species, with the apex sharply inclined over the front, of a rough ash-black substance, chipped, as it were, with white punctures, which are more numerous as they approach the basal margin.

Species 108. (Mus. Cuming.)

PATELLA AFFINIS. *Pat. testâ oblongo-ovatâ, depressâ, apice valdè antico, parvo, subacuto, radiatim liratâ et striatâ, liris striisque numerosis, obtusis, subundatis; nigricante-olivaceâ, radiis latis obliquè sanguineo-maculatis ornatâ, intus subpellucido-iridescente.*

THE ALLIED LIMPET. Shell oblong-ovate, depressed, apex very anterior, small, rather sharp, radiately ridged and striated, ridges and striæ numerous, obtuse, slightly waved; dark olive, ornamented with obliquely blood-blotched broad rays, interior subtransparent, iridescent.

Hab. New Zealand.

Two or three species, it will be seen, have been described of this same typical form from New Zealand, all essentially distinct in regard to sculpture. In the present species the surface is carved throughout with simple smooth slightly waved close-set ridges and striæ.

Species 109. (Mus. Cuming.)

PATELLA PRUINOSA. *Pat. testâ subdepresso-ovatâ, corneâ, apice antico, minutè acutè uncinato, radiatim tenuissimè liratâ, liris irregularibus, undatis, striis minutis concentricis decussatis; subpellucido-olivaceâ, punctis vividè cæruleo-viridibus radiatâ, maculis nigricante-olivaceis anticè tinctâ.*

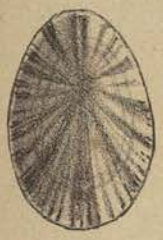
THE FROSTED LIMPET. Shell subdepressly ovate, horny, apex anterior, minutely sharply hooked, radiately very finely ridged, ridges irregular, slightly waved, decussated with minute concentric striæ; subpellucid-olive, rayed with bright blue-green dots, and stained in front with dark olive blotches.

KRAUSS, Südafric. Mollusken, p. 56. pl. 3. f. 9.

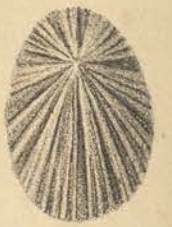
Hab. Table Bay.

A semitransparent horny depressly ovate shell, with a small sharply hooked apex, comparatively smooth, distinguished by a peculiar rayed sprinkling of blue-green dots of a bright metallic hue.

110a



111a

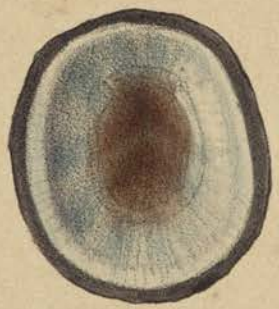


111b

110b

112a

112b



113a

114a

114b

113b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXXVI.

Species 110. (Mus. Cuming.)

PATELLA LENTIGINOSA. *Pat. testâ ovatâ, convexâ, apice anticè inclinato, obtuso, radiatim striatâ, striis plus minus erosis; albidâ, nigro-castaneo interruptè radiatâ et promiscuè undato-lentiginosâ, intus cærulescente-albâ.*

THE FRECKLED LIMPET. Shell ovate, convex, apex inclined anteriorly, obtuse, radiately striated, striæ more or less eroded; whitish, interruptedly rayed and promiscuously wave-freckled with blackish-chestnut, interior bluish-white.

Hab. —— ?

This species is particularly well characterized by the promiscuous wave-freckled style of its dark chestnut painting.

Species 111. (Mus. Cuming.)

PATELLA ARANEOSA. *Pat. testâ suboblongo-ovatâ, anticè attenuatâ, tenuiculâ, lateraliter compressâ, apice subacutè acuminato, antico, radiatim densè striatâ, striis funiculatis, striis concentricis minutè crenulatis; olivaceo-viridi, lineis opaco-albis numerosis conspicuè radiatâ, intus semipellucidâ.*

THE COBWEB LIMPET. Shell suboblong-ovate, attenuated in front, rather thin, compressed at the sides, apex rather sharply acuminated, anterior, radiately densely striated, striæ corded, minutely crenulated with concentric striæ; olive-green, conspicuously rayed with numerous opake-white lines, interior semitransparent.

Hab. Australia.

A somewhat depressed species, pinched and sharply pointed towards the apex, which inclines very much to the front, and of a dull greenish-olive colour, curiously rayed throughout with fine opake-white lines.

Species 112. (Mus. Cuming.)

PATELLA OREGONA. *Pat. testâ globoso-conoideâ, apice antico, acutè acuminato, uncinato, radiatim obtusè costatâ, costis nodatis, subcorrugatis; nigrâ, punctis albis numerosis, interdum nigro et albo strigatâ, intus cærulescente-albâ, medio intensè castaneâ.*

THE OREGON LIMPET. Shell globosely conoid, apex anterior, sharply acuminated, hooked, radiately obtusely ribbed, ribs noduled, slightly wrinkled; black, marked with numerous white punctures, streaked with black and white, interior bluish-white, deep chestnut in the middle.

NUTTALL, Jay's Catalogue of Shells, p. 38.

Hab. Mouth of the Oregon River, Upper California.

Of the same peculiar type as *P. umbonata* of the preceding Plate, and possibly only a variety of that species. It is rayed with more prominent swollen ribs, and is more sharply acuminated and hooked at the apex.

Species 113. (Mus. Cuming.)

PATELLA BORNEENSIS. *Pat. testâ rotundato-ovatâ, subdepressâ, apice subcentrali, obtuso, radiatim obscurè striatâ, striis plus minus erosis; atrâ, radiis irregularibus albis nigro-interruptis ornatâ, intus cærulescente, medio pallidè castaneâ, margine nigro, lato.*

THE BORNEO LIMPET. Shell rotundately ovate, rather depressed, apex nearly central, obtuse, radiately obscurely striated, striæ more or less eroded; black, ornamented with irregular black interrupted white rays, interior bluish, light chestnut in the middle, margin black, broad.

Hab. North coast of Borneo.

A depressed, rudely formed species, dull black, irregularly rayed with white rays interrupted with black, the interior being of a blue tinge, with an unusually broad black border.

Species 114. (Mus. Cuming.)

PATELLA STELLARIS. *Pat. testâ subdepresso-ovatâ, apice centrali, costis septem peramplis tumidis radiatis, ad marginem prolongatis, interstitiis lirâ angustâ brevi; sordidè albâ, intus albâ, medio pallidè castaneo-rufâ.*

THE STAR LIMPET. Shell subdepressly ovate, apex central, with seven large swollen radiating ribs, prolonged over the margin, interstices with a short narrow ridge; dull white, interior white, pale chestnut-red in the middle.

Patelloida stellaris, Quoy and Gaimard, Moll. Voy. de l'Astrolabe, vol. iii. p. 356. pl. 71. f. 1–4.

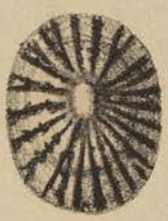
Hab. New Holland.

Distinguished from all other species of the genus, by its peculiarly swollen stellar radiating ribs.

115a

116a

116b



115b

117a

117b

118a

119a

119b

118b

PATELLA.

PLATE XXXVII.

Species 115. (Fig. 115 *a*, *b*, and 118 *a*, *b*, Mus. Cuming.)

PATELLA ELEGANS. *Pat. testâ ovatâ vel subquadrato-rotundatâ, depressiusculâ, apice subcentrali, radiatim tenuiliratâ et sulcatâ; carneo-albidâ, radiis spadiceis et nigris irregularibus, sæpè furcatis, circa apicem obscurè albo marmoratis ornatâ, intus lacteâ, medio pallidè fuscescente, margine conspicuè nigro tessellato.*

THE ELEGANT LIMPET. Shell ovate or somewhat squarely rotundate, rather depressed, apex subcentral, radiately finely ridged and grooved; flesh-white, ornamented with irregular bay and black rays, often forked, obscurely mottled around the apex with white, interior milk-white, pale brown in the middle, margin conspicuously tessellated with black.

PHILIPPI, Abbild. und Besch. Conch. *Patella*, pl. 2. f. 2. *Acmæa elegans*, Philippi.

Hab. La Guayra.

The specimens represented at Fig. 115 and 118 of this Plate prove, on minute examination, to be different forms of the same species. The dark pencilled rays are peculiarly broken up and white-mottled about the apex, and conspicuously neatly tessellated on the inner margin.

Species 116. (Mus. Cuming.)

PATELLA CIMELIATA. *Pat. testâ ovatâ, subconicâ, apice centrali, elevato, radiatim costatâ, costis angustis, subdistantibus, interstitiis obscurè clathratis; lutescente-albâ, costis opaco-albis, interstitiis promiscuè sanguineo-tinctis, intus opaco-albâ.*

THE JEWELLED LIMPET. Shell ovate, subconical, apex central, raised, radiately ribbed, ribs narrow, rather distant, interstices obscurely latticed; yellowish-white, ribs opake-white, interstices promiscuously blood-stained, interior opake-white.

Hab. Honduras; Dyson.

A very characteristic blood-red stained shell, the surface being obscurely latticed between radiating opake-white ribs.

Species 117. (Mus. Cuming.)

PATELLA STIPULATA. *Pat. testâ suboblongo-ovatâ, anticè subacuminatâ, depresso-convexâ, apice centrali, subacuto, radiatim liratâ, liris rudibus, confertis, valdè irregularibus, subundulatis, margine subacutè productis; virescente-nigrâ, lineis perpaucis albidis obscurè radiatâ, intus intensè cæruleo-viridi, margine nigricante.*

THE THATCHED LIMPET. Shell suboblong-ovate, a little acuminated in front, depressly convex, apex central, rather sharp, radiately ridged, ridges rude, close-set, very irregular, a little waved, rather sharply produced at the margin; greenish-black, faintly rayed with a few whitish lines, interior deep blue-green, margin blackish.

Hab. Panama.

A dark closely irregularly wave-ridged shell, the ridges here and there produced over the margin. The interior is of a peculiar deep blue-green.

Species 119. (Mus. Cuming.)

PATELLA SCABRA. *Pat. testâ ovatâ, anticè subattenuatâ, depresso-conoideâ, undique creberrimè scabroso-costatâ et liratâ, apice subantico, acuto, paululum uncinato; lutescente-albâ, ferrugineo-fusco undique densè tessellatâ, intus albâ.*

THE ROUGH LIMPET. Shell ovate, a little attenuated in front, depressly conoid, everywhere closely scabrously ribbed and ridged, apex subanterior, sharp, a little hooked; yellowish-white, densely tessellated throughout with rust-brown, interior white.

NUTTALL, Jay's Catalogue of Shells.

Hab. Upper California.

A very characteristic species, both in sculpture and colouring, sometimes of much larger size than the specimen here figured, with the character, however, in that case more or less obscured by abrasion.

Patella, Pl. XXXVIII.

120a

121a

121b

120b

122a

122b

123a

124a

124b

123b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XXXVIII.

Species 120. (Mus. Cuming.)

PATELLA LACUNOSA. *Pat. testâ oblongo-ovatâ, subelevato-conoideâ, apice subcentrali, obtuso, radiatim costatâ, costis tumidiusculis, obtusis, interstitiis subexcavatis, fortiter striatis; fuscescente-albidâ, costis albis, intus pellucido-albâ.*

THE GUTTERED LIMPET. Shell oblong-ovate, rather elevately conoid, apex nearly central, obtuse, radiately ribbed, ribs rather swollen, obtuse, interstices rather excavated, strongly striated; brownish-white, ribs white, interior transparent-white.

Hab. —•— ?

Chiefly distinguished by its oblong-oval form and prominent radiating ribs, which are somewhat swollen and worn.

Species 121. (Mus. Cuming.)

PATELLA FENESTRATA. *Pat. testâ ovatâ, anticè subattenuatâ, tenuiculâ, depresso-conoideâ, apice prominente, subobtuso, radiatim densè tenuistriatâ, striis subundulatis; virescente, cinereo-olivaceo undique tenuissimè tessellato-maculatâ, intus cærulescente-cinereâ, margine lato, nigro.*

THE WINDOWED LIMPET. Shell ovate, a little attenuated in front, rather thin, depressly conoid, apex prominent, rather obtuse, radiately densely finely striated, striæ a little waved; greenish, finely tessellately mottled with ash-olive, interior bluish-ash, with a broad black border.

NUTTALL, Jay's Catalogue of Shells, p. 38.

Hab. Upper California.

The colouring of this species is peculiar, the outer surface being densely mottled with a very fine network of ash-olive upon a greenish ground, whilst the interior is characterized by a broad black border.

Species 122. (Mus. Cuming.)

PATELLA PUNCTURATA. *Pat. testâ subquadrato-ovatâ, apice centrali, subobtuso, radiatim costatâ, costis irregularibus, nunc distinctis, nunc subobscuris, liris concentricis fere obsoletis cancellatis, super costis squamato-pustulatis; opaco-albâ, punctis sanguineis paucis promiscuè aspersâ, intus opaco-albâ.*

THE ROSE-DOTTED LIMPET. Shell somewhat squarely ovate, apex central, rather obtuse, radiately ribbed, ribs irregular, sometimes distinct, sometimes rather obscure, cancellated with nearly obsolete concentric ridges, squamately pustuled on the ribs; opake-white, promiscuously sprinkled with a few blood-red dots, interior opake-white.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. vii. p. 537.

Hab. Honduras; Dyson.

This appears to be the species imperfectly described by Lamarck under the above name from Barbadoes. Its chief characteristic is the sprinkling of blood-rose dots upon an opake-white ground, and squamately pustuled ribs, which are more or less worn.

Species 123. (Mus. Cuming.)

PATELLA ACHATES. *Pat. testâ ovatâ, tenuiculâ, convexo-depressâ, radiatim densè striatâ, striis hic illic tenuè funiculatis; intensè nigrâ, radiis albis fulguratis irregulariter variegatâ, intus cærulescente, margine latè nigro-variegato.*

THE AGATE LIMPET. Shell ovate, rather thin, convexly depressed, radiately densely striated, striæ here and there finely corded; intense black, irregularly variegated with lightning-marked white rays, interior bluish, with a broad black variegated border.

Hab. —— ?

A strikingly characteristic species in respect of painting, densely rayed with fine corded striæ.

Species 124. (Mus. Cuming.)

PATELLA DUNKERI. *Pat. testâ ovatâ, conoideâ, lateraliter subcompressâ, apice anticè inclinato, subuncinato, tenuiculâ, subpellucidâ, radiatim densè elevato-striatâ, interstitiis minutissimè cancellatis; cinereo-corneâ, pallidè radiatâ.*

DUNKER'S LIMPET. Shell ovate, conoid, a little compressed at the sides, apex inclined anteriorly, slightly hooked, rather thin, subpellucid, radiately densely elevately striated, interstices very minutely cancellated; ash-horny, faintly rayed.

KRAUSS, Südafric. Moll. p. 55. pl. 3. f. 14.

Hab. Port Natal.

A delicately rayed ash-horny subtransparent shell, elaborately sculptured with raised striæ, the interstices between which are very minutely cancellated.

125a

126a

126b

125b

127a

127b

128a

129a

129b

128b

PATELLA.

PLATE XXXIX.

Species 125. (Mus. Cuming.)

PATELLA CUBENSIS. *Pat. testâ rotundato-ovatâ, pyramidali-conoideâ, crassiusculâ, apice subcentrali, elevato, radiatim lineari-liratâ et sulcatâ; liris flexuosis, interruptis, furcatis; liris albis, sulcis nigris, intus albâ, medio intensè castaneâ, margine nigro-lineato.*

THE CUBA LIMPET. Shell rotundately ovate, pyramidally conoid, rather thick, apex nearly central, raised, radiately linearly ridged and grooved, ridges flexuous, interrupted and forked; ridges white, grooves black, interior white, dark chestnut in the middle, border black, lineated.

Hab. Cuba.

A solid, pyramidally conoid shell, peculiarly sculptured with promiscuously forked white ridges, the narrow interstices between which are black.

Species 126. (Mus. Cuming.)

PATELLA GRANO-STRIATA. *Pat. testâ depresso-ovatâ, tenuiculâ, anticè attenuatâ, apice anticè multo inclinato, radiatim striatis, striis elevatis, tenuè funiculatis, subtilissimè granulatis; livido-nigricante.*

THE GRAIN-STRIATED LIMPET. Shell depressly ovate, rather thin, attenuated in front, apex much inclined anteriorly, radiately striated, striæ raised, thinly corded, very finely granuled; livid black.

Hab. ——?

A thin, very depressed, anteriorly inclined shell, of a livid black hue, delicately rayed with characteristic granulated striæ.

Species 127. (Mus. Cuming.)

PATELLA JACKSONIENSIS. *Pat. testâ suboblongo-ovatâ, subrudi, apice centrali, elevato, obsoletè radiatim striatâ, plus minus erosâ; fusco alboque irregulariter radiatâ, intus radiatâ.*

THE PORT JACKSON LIMPET. Shell somewhat oblong-ovate, rather rude, apex central, raised, obsoletely radiately striated, more or less eroded; irregularly rayed with brown and white, rayed in the interior.

Hab. Port Jackson, Australia.

Of a peculiarly rude oblong-ovate growth, variously rayed with brown and white.

Species 128. (Mus. Cuming.)

PATELLA ALBICOSTATA. *Pat. testâ subquadrato-ovatâ, crassiusculâ, rudi, depressâ, apice centrali, radiatim rudè costatâ, costis obtusis, distantibus, subirregularibus; costis albidis, interstitiis nigris, intus albâ.*

THE WHITE-RIBBED LIMPET. Shell squarely ovate, rather thick, rude, depressed, apex central, radiately rudely ribbed, ribs obtuse, distant, rather irregular; ribs white, interstices black, interior white.

C. B. ADAMS, Contributions to Conchology.

Hab. Jamaica.

A very characteristic rudely depressed shell, starred with whitish rather distant ribs.

Species 129. (Mus. Cuming.)

PATELLA MIXTA. *Pat. testâ ovatâ, tenuiculâ, conoideâ, lateraliter compressâ, apice subantico, obsoletè decussatim striatâ; nigro luteoque peculiariter marmoratâ, intus variegatâ.*

THE MOTTLED LIMPET. Shell ovate, rather thin, conoid, compressed at the sides, apex rather anterior, obsoletely decussately striated; peculiarly mottled with black and yellow, variegated in the interior.

Hab. Port Phillip, Australia.

A thin, peculiar mottled shell, with somewhat the aspect of our northern *P. testudinalis*.

---

130 a

131 a

131 b

130 b

132 a

132 b

133 a

134 a

134 b

133 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XL.

Species 130. (Mus. Cuming.)

PATELLA NAVICULA. *Pat. testâ ovatâ, elevato-conoideâ, crassiusculâ, apice subcentrali, radiatim liratâ, liris numerosis, prominentibus, versus marginem obsolètè granulatis, interstitiis lirâ minore granulatâ; nigricante-cinereâ, liris albidis, intus medio castaneâ.*

THE LITTLE BOAT LIMPET. Shell ovate, elevately conoid, rather thick, apex nearly central, radiately ridged, ridges numerous, prominent, obsoletely granuled towards the margin, interstices with a smaller granuled ridge; blackish-ash, ridges white, interior chestnut in the middle.

Hab. Mazatlan; Lieut. Shipley, R.N.

The ridges of this little high conical shell have a prominent wrinkle-like appearance.

Species 131. (Mus. Cuming.)

PATELLA CANTHARUS. *Pat. testâ ovatâ, tenuiculâ, convexâ, apice valdè antico, acuto, uncinato, lævigatâ; nigrâ, albo irregulariter maculatâ, intus nigricante-castaneâ.*

THE BEETLE LIMPET. Shell ovate, rather thin, convex, apex very anterior, sharp, hooked, smooth; black, irregularly blotched with white, interior blackish-chestnut.

Hab. New Zealand; Earl.

Very characteristic in form and colouring, the apex being sharply hooked and bent over to the anterior margin, whilst the surface is smooth, promiscuously mottled with white blotches upon a black ground.

Species 132. (Mus. Cuming.)

PATELLA CORRUGATA. *Pat. testâ oblongo-ovatâ, valdè depressâ, subirregulari, radiatim costatâ, costis perpaucis, distantibus, obtusis, corrugatis, apice plus minus eroso; albidâ, costarum interstitiis circa apicem nigris, intus medio castaneâ.*

THE SHRIVELLED LIMPET. Shell oblong-ovate, very depressed, rather irregular, radiately ribbed, ribs very few, distant, obtuse, wrinkled, apex more or less eroded; whitish, interstices between the ribs black round the apex, interior chestnut in the middle.

Hab. Acapulco.

A depressly flattened oblong species, of irregular growth, rudely sculptured with a few widely distant obtuse ribs, that give the shell a peculiar shrivelled appearance.

Species 133. (Mus. Cuming.)

PATELLA PLANA. *Pat. testâ rotundato-ovatâ, valdè depressâ, planâ, irregulari, apice subcentrali, vix elevato, radiatim rudè sulcatâ, liris intermediis valdè irregularibus, corrugatis, versus marginem pustulatis; albidâ, sulcis cæruleo-nigro tinctis.*

THE FLAT LIMPET. Shell rotundately ovate, very depressed, flat, irregular, apex nearly central, scarcely raised, radiately rudely grooved, intermediate ridges very irregular, wrinkled, pustuled towards the margin; whitish, grooves stained with blue-black.

PHILIPPI, Abbild. und Besch. Conch. *Patella*, pl. 2. f. 3.

Hab. Valparaiso.

A very characteristic rudely flattened species, very irregularly wrinkled, ridged, and pustuled.

Species 134. (Mus. Cuming.)

PATELLA MELANOLEUCA. *Pat. testâ ovatâ, elevato-conoideâ, crassiusculâ, apice subcentrali, radiatim liratâ, liris plus minus obsoletis, obscurè granulatis; nigrâ, albo variegatâ, intus albâ, medio intensè castaneâ.*

THE PIED LIMPET. Shell ovate, elevately conoid, rather thick, apex nearly central, radiately ridged, ridges more or less obsolete, obscurely granulated; black, variegated with white, interior white, dark chestnut in the middle.

GMELIN, Syst. Nat. 13th edit.

Hab. —— ?

A deep conical shell, of rather stout substance, faintly grain-striated, pied with black and white.

Patella, Pl. XLI.

135 a

136 a

136 b

135 b

137 a

137 b

138 a

139 a

139 b

138 b

Sowerby del. et lith.

Vincent Brooks Imp

PATELLA.

PLATE XLI.

Species 135. (Mus. Cuming.)

PATELLA OCCIDENTALIS. *Pat. testâ quadrato-ovatâ, elevato convexâ, radiatim costatâ, costis superficiariis, obtusis, alternatim brevioribus; fuscescente, nigro-tessellatâ, costis pellucido-albis, intus albidâ.*

THE WESTERN LIMPET. Shell somewhat squarely ovate, elevately convex, radiately ribbed, ribs superficial, obtuse, alternately shorter, brownish; tessellated with black, ribs transparent white, interior whitish.

Hab. West Indies.

The alternate ribs of this species do not reach to the apex, and they are all of a transparent white substance, whilst the interstices are confusedly tessellated with black upon a brownish ground.

Species 136. (Mus. Cuming.)

PATELLA PARASITICA. *Pat. testâ orbiculari, elevato-convexâ, cyathiformi, apice anticè inclinato, striatâ aut rudè cancellatâ; lutescente-albâ, cæruleo-nigro vividè radiatim vel undatim strigatâ, intus cærulescente.*

THE PARASITIC LIMPET. Shell orbicular, elevately convex, cup-shaped, apex inclined anteriorly, striated or rudely cancellated; yellowish-white, radiately or undately streaked with blue-black, interior bluish.

D'Orbigny, Voy. dans l'Amérique, pl. 81. f. 1 to 3.

Hab. Valparaiso (on the rocks); Cuming.

A little raised cup-like shell, variously rayed or waved with blue-black upon a yellowish ground.

Species 137. (Mus. Cuming.)

PATELLA BALANOIDES. *Pat. testâ ovatâ, elevato-convexâ, radiatim costatâ, costis angustis, subrudibus, interstitiis concavis; fuscescente-albâ, circa apicem punctis nigris promiscuè aspersâ, intus albâ, medio castaneâ.*

THE BARNACLE LIMPET. Shell ovate, elevately convex, radiately ribbed, ribs narrow, rather rude, interstices concave; brownish-white, promiscuously sprinkled round the apex with black dots, interior whitish, chestnut in the middle.

Hab. West Indies.

The ribs of this species are narrow, irregular, and rather rude in structure, with the interstices between them gradually concave. The outer surface of the shell is of a dull stone-white, promiscuously dotted round the apex with black.

Species 138. (Mus. Cuming.)

PATELLA LEUCOPLEURA. *Pat. testâ elevato-conicâ, crassiusculâ, basi ferè orbiculari, apice obtusâ, radiatim liratâ, liris subirregularibus, funiculatis; cærulescente-cinereâ, liris nigricantibus, intus albâ, margine conspicuè lineato.*

THE WHITE-SIDE LIMPET. Shell elevately conical, rather thick, nearly orbicular at the base, obtuse at the apex, radiately ridged, ridges rather irregular, corded; bluish-ash, ridges blackish, interior white, margin conspicuously lineated.

GMELIN, Syst. Nat. 13th edit.

Hab. West Indies.

Particularly distinguished by its raised conical form, rayed throughout with fine blackish corded ridges upon a light slate ground.

Species 139. (Mus. Cuming.)

PATELLA COFFEA. *Pat. testâ ovatâ, convexo-depressâ, radiatim densè lirato-striatâ, semper pererosâ; intus extusque fusco-nigrâ, margine tenuè denticulato.*

THE COFFEE LIMPET. Shell ovate, convexly depressed, radiately densely ridge-striated, always very much eroded; brown-black within and without, finely denticulated at the margin.

Hab. Valparaiso; Cuming.

A dark brown species, of simple character, always much eroded.

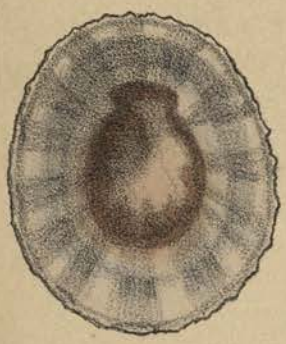
Patella, Pl. XLII

140 a

141 a

141 b

142 a



143 a

143 b

142 b

144 a

144 b

140 b

Sowerby del. et lith.

Vincent Brooks Imp.

PATELLA.

PLATE XLII.

Species 140. (Mus. Cuming.)

PATELLA MAMILLATA. *Pat. testâ ovatâ, anticè vix attenuatâ, acutè convexâ, apice uncinatâ, squamarum seriebus numerosis minutis muricato-radiatâ, striis concentricis decussatâ; sordidè olivaceâ, obscurè lateraliter biradiatâ, intus cærulescente, maculâ castaneâ centrali anticè peculiariter productâ, margine nigricante, lato.*

THE NIPPLE LIMPET. Shell ovate, slightly attenuated in front, sharply convex, hooked at the apex, prickly rayed with numerous ridges of fine scales, decussated with concentric striæ; dirty olive, obscurely laterally two-rayed, interior bluish, with a central chestnut blotch, peculiarly produced anteriorly, margin blackish, broad.

NUTTALL, MS., Mus. Cuming.

Hab. Upper California.

The outer surface of this species is prickly rayed throughout with minute scales, whilst in the interior the central chestnut blotch is curiously attenuated and produced in front.

Species 141. (Mus. Cuming.)

PATELLA UNCINATA. *Pat. testâ ovatâ, acutè conoideâ, apice paululum anticè uncinato, radiatim profusè tenuiliratâ, interstiis obscurè cancellatis; albidâ, nigricante-fusco tessellatâ aut diagonaliter strigatâ, intus cærulescente-albâ, pellucido-tessellatâ et castaneo pallidè tinctâ.*

THE HOOKED LIMPET. Shell ovate, sharply conoid, apex a little hooked anteriorly, radiately profusely finely ridged, interstices obscurely cancellated; whitish, tessellated or diagonally streaked with blackish-brown, interior bluish-white, transparent tessellated and stained with faint chestnut.

Hab. ——?

A very prettily tessellated species, closely finely ridged throughout, the shell being sharply conical and slightly hooked at the apex.

Species 142. (Mus. Cuming.)

PATELLA BIRADIATA. *Pat. testâ suborbiculari, conoideo-depressâ, apice subcentrali, radiatim striato-liratâ; albidâ, cæruleo-nigro prope marginem radiatâ, radiis duabus latis pallidis posticè conspicuè ornatâ, intus eodem colore vividè pictâ.*

THE TWO-RAYED LIMPET. Shell nearly orbicular, conoidly depressed, apex nearly central, radiately striately ridged; whitish, rayed with blue-black near the margin, conspicuously ornamented posteriorly with two broad pale bands, interior vividly painted with the same colour.

Hab. China Seas.

This species is characterized, among other features, by two broad pale bands, radiating from behind the apex, especially distinct in the interior.

Species 143. (Mus. Cuming.)

PATELLA NIMBUS. *Pat. testâ ovatâ, anticè vix attenuatâ, subacutè convexâ, apice subantico, undique decussatim undato-striatâ, striis radiantibus fortioribus; olivaceâ, lutescente eleganter radiatâ, circa apicem purpurascente.*

THE NIMBUS LIMPET. Shell ovate, slightly attenuated anteriorly, rather sharply convex, apex somewhat anterior, everywhere decussately wave-striated, the radiating striæ being the stronger; olive, elegantly rayed with faint yellow, purplish round the apex.

Hab. ——?

The rays of this species are very softly expressed, and have more the appearance of rays of light than is presented in any other species, whilst the surface striæ are finely waved throughout.

Species 144. (Mus. Cuming.)

PATELLA LIMA. *Pat. testâ oblongo-ovatâ, convexâ, apice antico, subuncinato, radiatim confertim lirato-striatâ, striis undique minutissimè muricato-squamatis; virescente-olivaceâ, intus vividè cæruleo-virescente, margine purpureo-fuscâ.*

THE FILE LIMPET. Shell oblong-ovate, convex, apex anterior, rather hooked, radiately closely ridge-striated, striæ very minutely prickly scaled; greenish-olive, interior bright blue-green, purple-brown at the margin.

Hab. ——?

The entire surface of this species is closely sculptured with very minute prickly scales.

PATELLA.

	Plate.	Species.
achates, *Reeve*	XXXVIII.	123
aculeata, *Reeve*	XXXII.	90
affinis, *Reeve*	XXXV.	108
ænea, *Martyn*	V.	9
albicostata, *C. B. Adams*	XXXIX.	128
amœna, Say	XXVII.	70
amussitata, *Reeve*	XXX.	83
araneosa, *Reeve*	XXXVI.	111
Araucana, *D'Orbigny*	XXVI.	66
argentata, *Sowerby*	VIII.	15
Argenvillii, *Krauss*	X.	20
articulata, *Reeve*	XXXIII.	97
aspera, *Lamarck*	XI.	23
aster, *Reeve*	XXX.	80
atramentosa, *Reeve*	XVII.	41
Balanoides, *Reeve*	XLI.	137
biradiata, *Reeve*	XLII.	142
Bonnardi, *Payraudeau*	XXI.	51
Borneensis, *Reeve*	XXXVI.	113
cærulea, *Lamarck*	XIII.	28
Candei, *D'Orbigny*	XV.	34
canescens, *Reeve*	XXXIV.	103
cantharus, *Reeve*	XL.	131
Chiloensis, *Reeve*	XXXIII.	98
Chitonoides, *Reeve*	XXI.	52
cimeliata, *Reeve*	XXXVII.	116
cinis, *Reeve*	XXIV.	60
clathratula, *Reeve*	XIV.	30
Clealandi, Sowerby	XXVII.	70
clypeater, *Lesson*	XVI.	38
clypeus, Born	XXVII.	70
cochlear, *Gmelin*	XII.	24
coffea, *Reeve*	XLI.	139
compressa, *Linnæus*	VII.	13
conspicua, *Philippi*	VII.	12
corrugata, *Reeve*	XL.	132
costoso-plicata, *Martini*	VIII.	14
cretácea, *Reeve*	XXI.	53
Cubensis, *Reeve*	XXXIX.	125
Cumingii, *Reeve*	XVI.	37
decora, *Philippi*	XV.	33
Delessertii, Philippi	XVII.	40
denticulata, Martyn	XIV.	31
depressa, Pennant	XVIII.	42
depsta, *Reeve*	XXXI.	85
diaphana, *Nuttall*	XXIV.	61

	Plate.	Species.
dira, *Reeve*	XXXII.	92
discors, *Philippi*	XXIX.	78
Dunkeri, *Philippi*	XXXVIII.	124
Earlii, *Reeve*	XXVII.	71
electrina, *Reeve*	XXII.	55
elegans, *Philippi*	XXXVII.	115
enneagona, *Reeve*	XVIII.	44
exarata, *Nuttall*	XIX.	47
exusta, *Reeve*	XV.	35
fenestrata, *Nuttall*	XXXVIII.	121
ferruginea, *Sowerby*	XVII.	40
ferruginea, Gmelin	VIII.	14
floccata, *Reeve*	XXXV.	106
Fuegiensis, *Reeve*	XXVIII.	73
funebris, *Reeve*	XXII.	54
fungus (*Tectura*), Meuschen	XXXV.	105
gorgonica, Humphreys	VI.	11
granatina, *Linnæus*	III.	4
grano-striata, *Reeve*	XXXIX.	126
granularis, *Linnæus*	XIV.	31
Grœnlandica, Chemnitz	XXVII.	70
guttata, *D'Orbigny*	XXXII.	91
imbricata, *Reeve*	XXXII.	93
inradiata, *Reeve*	XXI.	77
Jacksoniensis, *Reeve*	XXXIX.	127
laciniata, *Reeve*	XXXIV.	100
lacunosa, *Reeve*	XXXVIII.	120
lanx, *Reeve*	XXX.	82
lentiginosa, *Reeve*	XXXVI.	110
leucophæa, *Nuttall*	XXXIV.	101
leucopleura, *Gmelin*	XLI.	138
lima, *Reeve*	XLII.	144
limbata, *Philippi*	XIII.	29
lineata (*Lottia*) Gray	XXIII.	58
livescens, *Reeve*	XXIX.	75
longicosta, *Lamarck*	VI.	11
lugubris, *Dunker*	XIV.	32
Luzonica, *Reeve*	XXXI.	86
Magellanica, *Martini*	X.	19
mamillata, *Nuttall*	XLII.	140
margaritaria, *Chemnitz*	XXVIII.	74
melanoleuca, *Gmelin*	XL.	134
Mexicana, *Broderip and Sowerby*	I.	1
miniata, Born	IX.	17
mixta, *Reeve*	XXXIX.	129
morbida, *Reeve*	XXV.	64

	Plate.	Species.
navicula, *Reeve*	XL.	130
nigrisquamata, *Reeve*	II.	3
nigro-lineata, *Reeve*	XVIII.	43
nigro-punctata, *Reeve*	XXIII.	57
nigro-sulcata, *Reeve*	XXX.	84
nimbus, *Reeve*	XLII.	143
Nuttalliana, *Reeve*	XXX.	81
occidentalis, *Reeve*	XLI.	135
oculus, *Born*	II.	2
opea, *Nuttall*	XXIX.	79
Oregona, *Nuttall*	XXXVI.	112
ornata, Dillwyn	XXVIII.	74
parasitica, *D'Orbigny*	XLI.	136
penicillata, *Reeve*	XXXIV.	102
pentagona, *Born*	XX.	48
petalata, *Reeve*	XXII.	56
pica, *Reeve*	XIX.	45
plana, *Philippi*	XL.	133
plicata, *Born*	IX.	16
plumbea, *Lamarck*	III.	5
Pretrei, D'Orbigny	XII.	26
pruinosa, *Krauss*	XXXV.	109
puncturata, *Lamarck*	XXXVIII.	122
radians, *Gmelin*	XII.	25
rota, *Chemnitz*	XVII.	39
rustica, *Linnæus*	V.	8
rustica, Menke	IV.	7
saccharina, *Linnæus*	XXVIII.	72
sanguinalis, *Reeve*	XXXIII.	95
sanguinans, *Reeve*	VI.	10
sanguinolenta, Gmelin	IX.	17
scabra, *Nuttall*	XXXVII.	119
scalata, *Reeve*	XXXI.	89
scutellaris, *Lamarck*	XX.	49
spectrum, *Nuttall*	XXIX.	76
squamifera, *Reeve*	XXXII.	94
stellæformis, Reeve	XX.	48
stellaris (*Patelloidea*), Quoy	XXXVI.	114
stellularia, *Quoy*	XXXIII.	96
stipulata, *Reeve*	XXXVII.	117
striata (*Patelloidea*), Quoy	XXXIII.	99
tenera, *C. B. Adams*	XXXIV.	104
tessellata, Müller	XXVII.	70
testudinalis, *Müller*	XXVII.	70
testudinaria, *Linnæus*	IV.	6
toreuma, *Reeve*	XXVII.	69
tramoserica, *Martyn*	XIII.	27
umbella, *Gmelin*	IX.	17
umbonata, *Nuttall*	XXXV.	107
uncinata, *Reeve*	XLII.	141
undato-lirata, *Reeve*	XXIII.	59
ustulata, *Reeve*	XXXI.	88
variabilis, *Sowerby*	XXV.	63
varicosa, *Reeve*	XI.	21
variegata, *Reeve*	XVI.	36
venosa, *Reeve*	X.	18
verriculata, *Reeve*	XXXI.	87
vespertina, *Reeve*	XXVI.	67
vidua, *Reeve*	XI.	22
viridula, *Lamarck*	XII.	26
vulgaris, Da Costa	XVIII.	42
vulgata, *Linnæus*	XVIII.	42
zebra, *Reeve*	IV.	7
zebrina, *Lesson*	XXV.	65

ERRATA.

Sp. 15. For *P. cuprea*, Reeve, read *P. argentata*, Zool. Beechey's Voyage, p. 148. pl. 39. f. 7; and cancel synonyme *P. lugubris*.

MONOGRAPH

OF THE GENUS

N A S S A.

"What nature would compile,
Nature knows to reconcile;
And wisdom, ever at her side,
Of all her children's justified."—*Barron Field.*

1.

2a.

2b.

3.

4a.

4b.

5.

6a.

6b.

7.

Sowerby del et lith.

F. Reeve, imp.

NASSA.

PLATE I.

Genus NASSA, *Lamarck.*

Testa ovato-conica, plus minus turrita, in sinum profundum aut canalem brevissimum reflexum desinens; spirâ sæpè canaliculatâ; anfractibus plerumque longitudinaliter liratis aut costellatis, sæpè transversim sulcatis; aperturâ subquadrato-orbiculari, columellâ callositate nunc tenuè expansâ, nunc crassissimâ et perampla, interdum usque ad apicem repandâ, labro plerumque denticulato, fauce lirata. Operculum parvum, corneum.

Shell ovately conical, more or less turreted, ending in a deep sinus or very short recurved canal; spire often channelled; whorls generally longitudinally ridged or thin-ribbed, often transversely grooved; aperture somewhat squarely orbicular, columella with a callosity, now thinly expanded, now very thick and large, spread sometimes to the apex, lip generally denticulated, interior ridged. Operculum small, horny.

The *Nassæ* are a group of the Linnæan *Buccina*, mostly small, presenting a great diversity of sculpture, but little variety of form or colour. They are nearly all of solid growth, and are characterized, with few exceptions, by a peculiar callous development next the aperture, which varies according to the species. Proceeding from the columella, it appears in some as a short lamina, while in others it is thickly enamelled, and spread so as to reach nearly to the apex. Some excellent subgenera have been proposed for these typical differences. M. Kiener described several new species under the head of *Buccinum*, in addition to those of Lamarck; some few have been described by M. Deshayes, Mr. Say, Mr. Hinds, and Mr. Powis, and the list was considerably augmented about a year and a half since by the describing, by Mr. Arthur Adams, of the new species in Mr. Cuming's collection. They are chiefly inhabitants of the Eastern Seas.

Species 1. (Mus. Cuming.)

NASSA HIRTA. *Nass. testâ ovato-conicâ, subturritâ, rufescente, fasciis fuscescentibus cingulatâ; spirâ acutâ, costulis eminentibus coronatâ, in anfractu ultimo ætate evanescentibus; aperturâ albâ, subrotundatâ, emarginatâ, supernè angustatâ; labro crasso, extus marginato.*

THE ROUGH NASSA. Shell ovately conical, subturreted, reddish, encircled with brownish bands; spire sharp, coronated with conspicuous ribs, fading away in the last whorl with age; aperture white, somewhat rounded, emarginated, narrowed at the upper part; lip thick, margined externally.

Buccinum hirtum, Kiener, Icon. coq. vivantes, p. 63. pl. 19. f. 72.

Hab. Swan River, New Holland; Lieut. Preston.

A very elegantly coronated species, with the spire rising into a sharp turret.

Species 2. (Mus. Cuming.)

NASSA CRENULATA. *Nass. testâ ovato-conicâ, subturritâ, fasciis cinereo-fuscis obscurè pictâ; spirâ acutâ, canaliculatâ, costulis plicæformibus tenuicoronatâ, in anfractu ultimo evanescentibus; aperturâ ovatâ, albescente, supernè emarginatâ, labro acuto, basin versus crenulato, fauce sulcatâ.*

THE CRENULATED NASSA. Shell ovately conical, subturreted, obscurely painted with light ash-brown bands; spire sharp, channelled, finely coronated with small plait-like ribs, fading in the last whorl; aperture ovate, whitish, emarginated at the upper part, lip sharp, crenulated towards the base, interior grooved.

Buccinum crenulatum, Bruguière, Encyclopédie Méthodique, pl. 394. f. 6.

Hab. Philippine Islands; Cuming.

More finely plicately ribbed than the preceding species, while the lip has a conspicuously crenulated edge.

Species 3. (Mus. Cuming.)

NASSA SEMINODOSA. *Nass. testâ ovato-conicâ, acuminatâ, lævi, nitidâ, fulvo-fuscescente; suturâ tuberculis moniliformibus ornatâ; longitudinaliter plicatâ, plicis supernè subnodulosis; anfractu ultimo anticè transversim sulcato; columellâ lævi, cum callo tenui expanso obtecto, labro anticè dentato, intus sulcato.*

THE SEMINODOSE NASSA. Shell ovately conical, acuminated, smooth, shining, fulvous brown; suture ornamented with necklace-like tubercles; longitudinally plaited, plaits subnodose at the upper part; last whorl transversely grooved in front; columella smooth, covered with a thin expanded callosity, lip toothed in front, grooved within.

A. ADAMS, Pro. Zool. Soc. 1851.

Hab. Island of Annaa, South Seas (on the reefs); Cuming.

An interesting species, intermediate in its characters between *N. hirta* and *papillosa*.

Species 4. (Mus. Cuming.)

NASSA SUTURALIS. *Nass. testâ ovato-turritâ, albidâ, cinerascente-carneo marmoratâ, lineis filiformibus intensè rufis subæquidistantibus regulariter cingulatâ; spirâ acutâ, subcanaliculatâ; anfractibus lævibus, nitentibus, supernè angulatis et nodoso-coronatis; aperturâ ovatâ, supernè conspicuè emarginatâ; columellâ callosâ, subexpansâ, labro anticè crenulato.*

THE SUTURAL NASSA. Shell ovately turreted, whitish, marbled with light ash flesh tint, and encircled regularly with nearly equidistant deep red thread-like lines; spire sharp, subchannelled; whorls smooth, shining, angled and nodosely coronated at the upper part; aperture ovate, conspicuously emarginated at the upper part; columella callous, a little expanded, lip crenulated in front.

Buccinum suturale, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 166.

Nassa suturalis, Deshayes.

Hab. Island of Burias, Philippines (in sandy mud at ten fathoms); Cuming.

An elegant faintly mottled shell, encircled throughout at about equal distances with deep red lines. The spire is channelled and nodosely coronated.

Species 5. (Mus. Cuming.)

NASSA GLANS. *Nass. testâ ovato-conicâ, lævi, albâ, nitente, ustulato-luteo nebulosâ, lineis intensè rufis æquidistantibus regulariter cingulatâ; spirâ acuminatâ, prope apicem longitudinaliter plicatâ; anfractibus supernè plano-angulatis; aperturâ ovatâ, supernè emarginatâ, labro anticè denticulis muricato.*

THE ACORN NASSA. Shell ovate, conical, smooth, white, shining, clouded with burnt yellow, encircled regularly with equidistant deep red lines; spire acuminated, longitudinally plaited near the apex; whorls flatly angled at the upper edge; aperture ovate, emarginated at the upper part, lip prickly in the front with denticles.

Buccinum glans, Linnæus, Syst. Nat. (12th edit.) p. 1200.

Hab. Philippine Islands; Cuming.

A well-known species, characterized, like the preceding, by being encircled throughout with conspicuous equidistant red lines.

Species 6. (Mus. Cuming.)

NASSA MUTABILIS. *Nass. testâ ovato-conicâ, lævi, nitidâ, prope apicem longitudinaliter plicatâ, fulvo-rufo aut luteo nebulosâ; spirâ acutâ; anfractibus convexis, prope suturas fasciâ albâ rufo-maculatâ cinctis; aperturæ fauce sulcatâ.*

THE CHANGEABLE NASSA. Shell ovately conical, smooth, shining, longitudinally plaited near the apex, clouded with fulvous-red and yellow; spire sharp; whorls convex, encircled at the suture with a red-spotted white band; interior of the aperture grooved.

Buccinum mutabilis, Linnæus, Syst. Nat. (12th edit.) p. 1201.

Buccinum gibbum, Bruguière.

Nassa gibba, Roïssy.

Buccinum foliosum, Wood.

Hab. Mediterranean.

Readily distinguished by its mottled colouring and sutural red-blotched band.

Species 7. (Mus. Cuming.)

NASSA MARMOREA. *Nass. testâ ovato-conicâ, lævi, nitidâ; spirâ subacuminatâ; albidâ, luteo-fusco trifasciatim marmoratâ; anfractibus planiusculis, supernè subcontractis; columellâ subcorrugatâ, labro extus varicoso, intus sulcato.*

THE MARBLED NASSA. Shell ovately conical, smooth, shining; spire a little acuminated; whitish, marbled in three bands with yellowish-brown; whorls rather flat, rather contracted about the upper part; columella slightly wrinkled, lip varicose without, grooved within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Cayayan, Island of Mindanao, Philippines (in sandy mud at twenty-five fathoms); Cuming.

A smooth rather solid shell, contracted about the sutures; bluish-white, encircled with three mottled yellowish-brown bands.

8.

9.a

9.b

10.

11.a

11.b

12.

13.a

13.b

14.

Sowerby, del et lith.

F. Reeve, imp.

NASSA.

PLATE II.

Species 8. (Mus. Cuming.)

NASSA MUCRONATA. *Nass. testâ ovato-conicâ, sublævi, nitidâ, longitudinaliter plicatâ, lutescente-fusco variegatâ; anfractibus rotundatis, supernè contractis, ultimo subgibboso; spirâ acutâ, mucronatâ; columellâ lævi, callosâ, labro subincrassato, fauce sulcato.*

THE POINTED NASSA. Shell ovately conical, rather smooth, shining, longitudinally plaited, variegated with yellowish-brown; whorls rounded, contracted at the upper part, last whorl rather gibbous; spire sharp, pointed; columella smooth, callous, lip rather thickened, interior grooved.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Dumaguete, Isle of Negros, Philippines (in black sand at eleven fathoms); Cuming.

The whorls of this characteristic little species are peculiarly gibbous, while the spire is raised at the apex into an unusually sharp point.

Species 9. (Mus. Cuming.)

NASSA PICTA. *Nass. testâ ovato-conicâ, lævigatâ, politâ, lutescente marmoratâ, maculis castaneis hic illic pictâ, fasciâ castaneo-articulatâ ad suturas et in medio, lineisque rufescentibus æquidistantibus cinctâ; anfractibus convexis; spirâ acutâ; aperturâ parviusculâ, columellâ arcuatâ, callosâ, labro incrassato, varicoso, fauce sulcatâ.*

THE PAINTED NASSA. Shell ovately conic, smooth, polished, marbled with pale yellow, painted here and there with chestnut blotches, with a chestnut-articulated band at the sutures and in the middle, and encircled with equidistant reddish lines; whorls convex; spire sharp; aperture rather small, columella arched, callous, lip thickened, varicose, interior grooved.

DUNKER, Zeitschrift für Malac. 1846, p. 172.

Hab. Philippine Islands; Cuming.

Allied in form to the preceding species, but not plicated, while it is distinguished by a characteristic style of painting.

Species 10. (Mus. Cuming.)

NASSA ELEGANS. *Nass. testâ ovato-conicâ, crassiusculâ, lævi, nitidâ, albescente, fasciis spadiceis longitudinalibus ad suturas maculatis plus minus obscurè tinctâ; anfractibus convexis; spirâ acuminatâ, ad apicem plicatâ; aperturâ parviusculâ, fauce sulcatâ, columellâ lamellâ expansâ corrugatâ, labro subincrassato, margine acuto.*

THE ELEGANT NASSA. Shell ovately conical, rather thick, smooth, shining, whitish, more or less obscurely stained with fawn bands, which are blotches at the sutures; whorls convex; spire acuminated, plicated at the apex; aperture rather small, grooved within, columella with a wrinkled expanded lamella, lip rather thickened, sharp at the edge.

Buccinum elegans, Kiener Icon. coq. vivantes, p. 56. pl. 24. f. 97.

Hab. Indian Ocean.

A solid acuminated species, peculiarly stained with longitudinal bands, which gather into blotches at the sutures.

Fig. 11. (Mus. Cuming.)

This proves to be a light variety of *N. suturalis*, described at Sp. 4 of the preceding Plate, in which the sutural nodules are almost obsolete.

Species 12. (Mus. Cuming.)

NASSA PAPILLOSA. *Nass. testâ ovato-conicâ, crassiusculâ, fulvescente, ustulato-rufo sparsim tinctâ, tuberculis papillosis undique regulariter obsitâ; aperturâ albâ, columellâ callosâ, labro anticè muricato-denticulato.*

THE PAPILLOSE NASSA. Shell ovately conical, rather thick, light fulvous, sparingly stained with burnt brown, regularly set throughout with papillose tubercles; aperture white, columella callous, lip prickly denticulated in front.

Buccinum papillosum, Linnæus, Syst. Nat. (12th edit.) p. 1200.

Hab. Philippine Islands; Cuming.

Peculiarly characterized by its strong thick-set armature of papillose tubercles.

Species 13. (Mus. Cuming.)

NASSA SPIRATA. *Nass. testâ ovato-conicâ, acuminatâ, lævi, nitidâ, albidâ, luteo-fusco undato-nebulosâ; anfractibus convexis, ad suturas angulatis, versus apicem*

plicato-costellatis; aperturâ parviusculâ, columellâ callosâ, lævi, labro subincrassato, simplici.

The spired Nassa. Shell ovately conical, acuminated, smooth, shining, whitish, wave-clouded with yellowish-brown; whorls convex, angled at the sutures, plicately ribbed towards the apex; aperture rather small, columella callous, smooth, lip slightly thickened, simple.

A. Adams, Pro. Zool. Soc. March 1851.

Hab. Swan River.

The general aspect of this species reminds one of the *Eburna spirata* on a small scale.

Species 14. (Mus. Cuming.)

Nassa rufula. *Nass. testâ ovato-conicâ, lævi, subventricosâ, albidâ, fulvo castaneoque nebulosâ et strigatâ, lineis rufulis tenuibus æquidistantibus cingulatâ; anfractibus convexis, ultimo ad basin sulcato; columellâ arcuatâ, callosâ, labro simplici.*

The reddish Nassa. Shell ovately conical, smooth, subventricose, whitish, clouded and streaked with fulvous and chestnut, and encircled with faint equidistant reddish lines; whorls convex, the last grooved at the base; columella arched, callous, lip simple.

Buccinum rufulum, Kiener, Icon. coq. vivantes, p. 89. pl. 24. f. 95.

Hab. Australia.

A light subinflated species, clouded with chestnut and fulvous, and neatly encircled with equidistant faint thread-like lines.

15.

16a.

16b.

17.

18a.

18b.

19.

20a.

20b.

20c.

Sowerby, del. et lith.

F. Reeve, imp.

NASSA.

PLATE III.

Species 15. (Mus. Cuming.)

NASSA LENTIGINOSA. *Nass. testâ ovato-conicâ, lævi, nitidâ, lutescente aut cinerascente, lineis tenuibus rufis cingulatâ, fusco undique subtilissimè lentiginosâ; spirâ acuminatâ; anfractibus convexis, ad suturas plicato-marginatis; columellâ laminâ callosâ corrugatâ, labro intus incrassato et valdè radiatim lirato.*

THE FRECKLED NASSA. Shell ovately conical, smooth, shining, yellowish or ash, encircled with fine red lines, very finely freckled throughout with brown; spire acuminated; whorls convex, plicately margined at the sutures; columella with a callous wrinkled lamina, lip thickened inwardly, strongly radiately ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Masbate, Philippines (in sandy mud at seven fathoms); Cuming.

A dark greenish-ash species, sometimes yellowish, fine-freckled with darker colour, and encircled with faint red lines.

Species 16. (Mus. Cuming.)

NASSA SPECIOSA. *Nass. testâ ovato-conicâ, acuminatâ, lutescente-albâ, transversim liratâ, liris tenuibus, confertis, granulosis, longitudinaliter plicatâ, plicis supernè nodatis, nodis albis; aperturâ parviusculâ, albâ, ad basin rufo-fusco tinctâ, columellâ arcuatâ, labro simplici.*

THE BEAUTIFUL NASSA. Shell ovately conic, acuminated, yellowish-white, transversely ridged, ridges fine, close-set, and granuled, longitudinally plaited, plaits noduled at the upper part, nodules white; aperture rather small, white, stained with reddish-brown at the base, columella arched, lip simple.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. ——?

An elegant acuminated species, encircled with fine granulated ridges, while each whorl is coronated with white nodules.

Species 17. (Mus. Cuming.)

NASSA UNICOLORATA. *Nass. testâ ovato-conicâ, lævi, prope apicem rudè plicatâ, basi sulcatâ, livido-cinerascente, lineis minutis albis longitudinalibus obscurè notatâ; suturis albidis; columellâ arcuatâ, laminâ corrugatâ, labro simplici, ad basin minutè denticulato, extus fortissimè varicoso.*

THE ONE-COLOURED NASSA. Shell ovately conic, smooth, rudely plaited towards the apex, grooved at the base, livid-ash, obscurely marked with minute white longitudinal lines; sutures whitish; columella arched, with a wrinkled lamina, lip simple, minutely denticulated at the base, very strongly varicose without.

Buccinum unicolorum, Kiener, Icon. coq. viv. p. 60. pl. 19. f. 69.

Hab. North Australia; Jukes.

A fine solid species, closely allied to *N. olivacea*.

Species 18. (Mus. Cuming.)

NASSA CANALICULATA. *Nass. testâ ovato-conicâ, longitudinaliter tenuiplicatâ, basi sulcatâ, cinereo-olivaceâ, interdum pallidè castaneo-bizonatâ; spirâ acutâ; anfractibus supernè canaliculatis, duobus infimis dorso plus minus lævibus; columellâ laminâ expansâ subcorrugatâ, labro fortiter varicoso, fauce liratâ.*

THE CHANNELLED NASSA. Shell ovately conic, longitudinally finely plaited, grooved at the base, ash-olive, sometimes faintly banded with two chestnut zones; spire sharp; whorls channelled round the upper part, the two lowest whorls more or less smooth at the back; columella with a slightly wrinkled expanded lamina, lip strongly varicose, interior ridged.

Buccinum canaliculatum, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 161.

Nassa canaliculata, Deshayes.

Hab. Philippine Islands; Cuming.

Readily distinguished from its allied species by its densely plaited sculpture, and channelled suture.

Species 19. (Mus. Cuming.)

NASSA OLIVACEA. *Nass. testâ ovato-conicâ, longitudinaliter plicatâ, plicis in anfractibus duobus infimis evanidis, basi sulcatâ; rufo-fuscescente vel olivaceâ, zonulâ pallidâ medianâ cinctâ; aperturâ subangustè ovatâ, cærulescente-albâ, columellâ laminâ expansâ corrugatâ, labro extus fortiter varicoso, intus brevilirato.*

THE OLIVE NASSA. Shell ovately conical, longitudinally

plaited, plaits in the two last whorls fading away, grooved at the base; reddish-brown or olive, encircled by a small faint central zone; aperture rather narrowly ovate, bluish-white, columella with an expanded wrinkled lamina, lip strongly varicose, short-ridged within.

Buccinum olivaceum, Bruguière Dict. No. 38.

Nassa olivacea, Deshayes.

Buccinum tænia, Gmelin.

Hab. West Indies.

This well-known species varies a little in colour and robustness of form, but the difference is not material.

Species 20. (Fig. *a*, *b*, *c*, Mus. Cuming.)

NASSA CORONATA. *Nass. testâ ovatâ, subventricosâ, dorso lævigatâ, nitente, albâ vel olivaceâ, vel castaneâ, medio zonatâ; spirâ acutâ, prope apicem plicatâ; anfractibus subrotundatis, supernè tuberculato-nodatis; aperturâ subamplâ, columellâ arcuatâ, callosâ, labro subvaricoso, margine denticulato, fauce tenuiliratâ.*

THE CORONATED NASSA. Shell ovate, subventricose, smooth at the back, shining, white or olive or chestnut, zoned in the middle; spire sharp, plaited near the apex; whorls somewhat rounded, tubercularly noduled at the upper part; aperture rather large, columella arched, callous, lip slightly varicose, denticulated at the edge, interior finely ridged.

Buccinum coronatum, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. x. p. 180.

Nassa coronata, Deshayes.

Hab. Madagascar.

In the dark varieties of this species the band is light, and in the light varieties it is dark.

21.

22.a

22.b

23.

24.a

24.b

25.a

26.a

26.b

25.b

Sowerby, del. et lith.

F. Reeve, imp.

NASSA.

PLATE IV.

Species 21. (Mus. Cuming.)

NASSA SCALARIS. *Nass. testâ ovato-turritâ, pallidâ, rufo-fusco subfasciatâ; spirâ exsertâ, acuminatâ, suturâ impressâ; anfractibus longitudinaliter densè costatis, costis ad suturas nodulatis, interstitiis creberrimè cancellatis; aperturâ parviusculâ, columellâ laminâ expansâ subcorrugatâ, labro simplici, fauce valdè liratâ.*

THE LADDER-LIKE NASSA. Shell ovately turreted, pale, obscurely banded with reddish-brown; spire exserted, acuminated, suture impressed; whorls longitudinally densely ribbed, ribs noduled at the sutures, interstices very closely cancellated; aperture rather small, columella with a slightly wrinkled expanded lamina, lip simple, interior strongly ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Corrigidor, Philippines (in coarse sand at seven fathoms); Cuming.

An elegantly sculptured shell, resembling *Scalaria* in general aspect.

Species 22. (Mus. Cuming.)

NASSA PULLA. *Nass. testâ ovatâ, plicis subrudibus longitudinalibus, sulcis transversis densè decussatâ, cinereo-cærulescente, interdum albizonatâ; anfractibus supernè angulatis, ad angulum nodatis; columellâ arcuatâ, laminâ lati-expansâ callosâ orbiculari, fauce liratâ.*

THE YOUNG NASSA. Shell ovate, decussated with rude longitudinal plaits and transverse grooves, ash-blue, sometimes white-zoned; whorls angled at the upper part, noduled on the angle; columella arched, with a large wide-spread orbicular callous lamina, interior ridged.

Buccinum pullus, Linnæus, Syst. Nat. (12th edit.) p. 1201.
Nassa pulla, Deshayes.

Hab. Philippine Islands; Cuming.

A solid greenish-ash shell, with a pale central band.

Species 23. (Mus. Cuming.)

NASSA NODIFERA. *Nass. testâ ovato-conicâ, cinereo-albescente, rufo-fusco sparsim maculatâ, longitudinaliter costatâ; anfractibus convexis, costis callosis, nitentibus, ad suturas subnodosis; aperturâ ovatâ, columellâ arcuatâ, laminâ expansâ, callosâ, fauce valdè liratâ.*

THE NODIFEROUS NASSA. Shell ovately conical, ash-white, spotted here and there with red-brown, longitudinally ribbed; whorls convex, ribs callous, shining, subnodose at the sutures; aperture ovate, columella arched, with an expanded callous lamina, interior strongly ridged.

POWIS, Pro. Zool. Soc. 1835, p. 95.

Hab. Galapagos Islands and Panama (in coral sand at from six to ten fathoms); Cuming.

The ribs of this species have a peculiar shining enamel-like appearance.

Species 24. (Mus. Cuming.)

NASSA SULCIFERA. *Nass. testâ ovato-ventricosâ, cinerascente, albifasciatâ, longitudinaliter subplicatâ, transversim liratâ; spirâ productâ, acutâ; anfractibus convexis, supernè angulatis, ultimo sulco subamplo infra suturam; columellâ arcuatâ, callo supernè expanso, fauce liratâ.*

THE GROOVED NASSA. Shell ovately ventricose, ash, white-banded, longitudinally subplicated, transversely ridged; spire produced, sharp; whorls convex, angled at the upper part, last whorl with a rather large groove beneath the suture; columella arched, with a spreading callosity above, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Algoa Bay.

Somewhat ventricose in form, with only faint indications of longitudinal plaits.

Species 25. (Fig. *a*, *b*, Mus. Cuming.)

NASSA ARCULARIA. *Nass. testâ ovatâ, ventricosâ, crassâ, cinereâ vel olivaceâ, zonulâ albâ cingulatâ, prope apicem plicatâ, deinde lævigatâ, nitente, ad basin sulcatâ; spirâ acutâ, anfractibus supernè angulatis, ad angulum tuberculato-nodatis; columellâ arcuatâ, interdum callo latè expanso erecto orbiculari, fauce liratâ.*

THE LITTLE BOX NASSA. Shell ovate, ventricose, thick, ash or olive, encircled with a white zone, plicated near the apex, then smooth and shining, grooved at the base; spire sharp; whorls angled at the upper part, tubercularly noduled at the angle; columella arched, sometimes with a broadly expanded erect orbicular callosity, interior ridged.

Buccinum arcularia, Linnæus, Syst. Nat. (12th edit.) p. 1200.

Nassa arcularia, Lamarck.

Hab. Philippine Islands; Cuming.

This well-known species is perhaps the most strongly tubercled of the genus.

Species 26. (Mus. Cuming.)

NASSA CREMATA. *Nass. testâ ovato-conicâ, liris longitudinalibus et transversis undique densè cancellatâ, cinereo-olivaceâ, fusco partim tinctâ; spirâ subcanaliculatâ, suturâ impressâ; aperturâ parviusculâ, columellâ arcuatâ, laminâ tenuicorrugatâ, labro muricato-denticulato.*

THE BURNED NASSA. Shell ovately conical, densely cancellated throughout with longitudinal and transverse ridges, ash-olive, partially stained with brown; spire subchannelled, suture impressed; aperture rather small, columella arched, with a finely wrinkled lamina, lip prickly denticled.

HINDS, Moll. Voy. Sulphur, pl. 9. f. 8 and 9.

Hab. Straits of Malacca.

A rather solid species, densely crossed-ridged throughout, with somewhat the aspect of a *Cancellaria*.

27.

28.a

28.b

29.

30.a

30.b

31.

32.a

32.b

33.

Sowerby, del. et. lith.

F. Reeve, imp.

NASSA.

PLATE V.

Species 27. (Mus. Cuming.)

NASSA PAUPERATA. *Nass. testâ ovatâ, ventricosâ, longitudinaliter granoso-plicatâ, granis fortioribus juxta suturas, albâ, luteo-castaneo interruptè fasciatâ; anfractu ultimo dorso sublævigato, nitente; aperturâ parviusculâ, labro varicoso, fauce striatâ.*

THE IMPOVERISHED NASSA. Shell ovate, ventricose, longitudinally granosely plaited, grains stronger next the sutures; white, interruptedly banded with yellowish chestnut; last whorl rather smooth at the back, and shining; aperture rather small, lip varicose, interior striated.

Buccinum pauperatum, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. 10. p. 183.

Hab. Australia.

There is no up-raised callosity in this species, although some specimens may have a thicker deposit of enamel about the columella than others.

Species 28. (Mus. Cuming.)

NASSA RETECOSA. *Nass. testâ ovatâ, acuminatâ, rufescente-cinereâ; spirâ acutâ, suturâ impressâ; anfractibus convexis, undique densè granoso-reticulatis, granis parviusculis, prominentibus; columellâ corrugatâ; laminâ tenuiculâ expansâ, aperturâ supernè sinuatâ, fauce liratâ.*

THE NETTED NASSA. Shell ovate, acuminated, reddish-ash; spire sharp, suture impressed; whorls convex, densely granosely reticulated, grains rather small, but prominent; columella wrinkled, with a rather thin expanded lamina, aperture sinuated at the upper part, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Albay, Island of Luzon, Philippines (in coarse sand at six fathoms); Cuming.

Closely allied to *N. cremata*, which scarcely differs except in having the suture angularly channelled.

Species 29. (Mus. Cuming.)

NASSA GEMMULATA. *Nass. testâ ovatâ, ventricosâ, longitudinaliter granoso-plicatâ, granis tumidis, verrucosis, lutescente-albâ, fuscescente tinctâ et promiscuè maculatâ; spirâ breviusculâ, acutâ, suturâ plano-canaliculatâ; anfractu ultimo multo majore, rotundato; columellâ granoso-laminatâ, fauce valdè liratâ.*

THE JEWELLED NASSA. Shell ovate, ventricose, longitudinally granosely plaited, grains swollen, warty; yellowish-white, stained and promiscuously spotted with light brown; spire rather short, sharp, suture flatly channelled; last whorl much the largest, rounded; columella granosely laminated, interior strongly ridged.

Buccinum gemmulatum, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. 10. p. 169.

Nassa gemmulata, Deshayes.

Hab. Philippine Islands; Cuming.

A rounded bulbous-like species, densely wart-grained throughout.

Species 30. (Mus. Cuming.)

NASSA CUMINGII. *Nass. testâ ovatâ, subventricosâ, solidâ, subpellucido-albâ, rufo-fuscescente promiscuè tinctâ, granis verrucosis undique densissimè seriatim sculptâ; spirâ subacutâ, suturâ plano-canaliculatâ; aperturâ parviusculâ, columellâ granoso-laminatâ, fauce valdè liratâ.*

CUMING'S NASSA. Shell ovate, rather ventricose, solid, subtransparent white, stained promiscuously with faint reddish-brown, very densely sculptured throughout with rows of warty granules; spire rather sharp, suture flatly channelled; aperture rather small, columella granosely laminated, interior strongly ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. China.

An elegant subtransparent-looking shell, though solid, very densely regularly set throughout with small warty granules.

Species 31. (Mus. Cuming.)

NASSA STOLIDA. *Nass. testâ ovato-conicâ, subpyramidali, crassâ, solidissimâ, cærulescente-cinereâ, fusco luteoque tinctâ et maculatâ; anfractibus plano-declivibus, supernè subindentatis et rudè irregulariter plicatis, interstitiis obscurè tenuicancellatis; aperturâ parvâ, columellâ valdè callosâ, callositate breviter recurvâ, labro simplici, fauce lævigatâ, purpureo-fuscâ.*

THE HEAVY NASSA. Shell ovately conical, somewhat

pyramidal, thick, very solid, bluish-ash, sparingly stained and blotched with yellow and brown; whorls flatly slanting, slightly indented and rudely irregularly plaited round the upper part, interstices obscurely finely cancellated; aperture small, columella very callous, callosity shortly recurved, lip simple, interior smooth, purple-brown.

A. ADAMS, Pro. Zool. Soc. March 1851.
Hab. ——?

A heavy solid species of a peculiar pyramidal form, very rudely and irregularly sculptured.

Species 32. (Mus. Cuming.)

NASSA DISTORTA. *Nass. testâ acuminato-conicâ, solidâ, cærulescente-cinereâ, luteo fuscoque plus minus tinctâ et obsoletè fasciatâ; spirâ elevatâ, anfractibus juxta suturas subcontractis, granatis, deinde tenuiplicatis; aperturâ parvâ, columellâ densè callosâ, labro simplici, fauce tenuiliratâ.*

THE DISTORTED NASSA. Shell acuminately conical, solid, bluish-ash, more or less stained and obsoletely banded with yellow and brown; spire raised, whorls slightly contracted and granuled next the sutures, then thinly plaited; aperture small, columella thickly callous, lip simple, interior thinly ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.
Hab. ——?

Of the same peculiar type as the *preceding species*, distinguished by a delicate sculpture of thin longitudinal plaits, with a granule corresponding to each next the sutures.

Species 33. (Mus. Cuming.)

NASSA ORNATA. *Nass. testâ ovato-conicâ, basi sulcatâ et contortâ, spirâ acutâ, luteo-albâ, violascente-rufo latizonatâ; anfractibus convexis, longitudinaliter concentricè tuberculato-plicatis, interstitiis striato-cancellatis; aperturâ parviusculâ, tenuè corrugato-laminatâ, labro crassissimè varicoso, fauce breviliratâ.*

THE ORNATE NASSA. Shell ovately conical, grooved and twisted at the base, spire sharp, yellowish-white, broad-zoned with violet-red; whorls convex, longitudinally concentrically tubercle-plaited, interstices striately cancellated; aperture rather small, thinly wrinkled laminated, lip very thickly varicose, interior short-ridged.

KIENER, Icon. coq. vivantes, p. 80. pl. 21. f. 83.
Hab. Ceylon.

A characteristic species, belonging to the group of the genus bordering on *Triton*.

34.

35.a

35.b

36.

37.a

37.b

38.

39.a

39.b

40.

NASSA.

PLATE VI.

Species 34. (Mus. Cuming.)

NASSA ANGULIFERA. *Nass. testâ ovato-conicâ, subturritâ, fulvescente, rufo-fasciatâ; anfractibus convexis, supernè angulatis, longitudinaliter plicatis, interstitiis striato-cancellatis; aperturâ parviusculâ, columellâ brevilaminatâ, labro simplici, varicoso.*

THE ANGLED NASSA. Shell ovately conic, subturreted, light fulvous, banded with red; whorls convex, angled at the upper part, longitudinally plaited, interstices striately cancellated; aperture rather small; columella short-laminated, lip simple, varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Galapagos Islands (at ten fathoms); Cuming.

A small species, allied to the *Triton*-like division of the genus, distinguished by the angular contour of the whorls round the upper part.

Species 35. (Mus. Cuming.)

NASSA FILOSA. *Nass. testâ ovatâ, subobliquè productâ, crassâ, politâ, nitente, cinereo-olivaceâ, albilentiginosâ, fasciis subobscuris duabus lineisque distantibus rufis cingulatâ; spirâ brevi, acutâ; anfractibus convexis, subobliquè declivibus; aperturâ parvâ, columellâ labroque densè callosis, labro lutescente, immaculatâ.*

THE THREADED NASSA. Shell ovate, somewhat obliquely produced, thick, polished, shining, ash-olive, freckled with white, and encircled with distant red lines, and two obscure reddish bands; spire short, sharp; whorls convex, rather obliquely slanting; aperture small, columella and lip thickly callous, lip yellowish, unspotted.

GRAY, Brit. Mus.

Hab. Cagayan, Island of Mindanao, Philippines (in sandy mud at twenty-five fathoms); Cuming.

A very characteristic, shining, enamelled species, resembling *Cyllene* in form.

Species 36. (Mus. Cuming.)

NASSA VERRUCOSA. *Nass. testâ acuminato-ovatâ; spirâ acutâ, suturâ plano-canaliculatâ; undique seriatim granosâ, granis tumidis, perampliter verrucosis, lutescente, rufo-fusco sparsim nebuloso; aperturâ parvâ, columellâ laminâ corrugatâ tenui expansâ, fauce liratâ.*

THE WARTY NASSA. Shell acuminately ovate; spire sharp, flatly channelled at the suture; everywhere seriately granuled, granules swollen, very largely warty; yellowish, sparingly clouded with reddish-brown; aperture small, columella with a thin expanded wrinkled lamina, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Dalaguete, Island of Negros, Philippines (at eleven fathoms); Cuming.

Allied to *N. gemmulata* of the preceding plate, but the granules are larger and more decidedly warty.

Species 37. (Mus. Cuming.)

NASSA HISPIDA. *Nass. testâ ovato-conicâ, solidiusculâ, albâ, fasciâ indistinctâ olivaceâ notatâ; spirâ acutâ; anfractibus plano-convexis, undique fortiter seriatim muricato-granosis, serie supernâ distantiore et prominente; aperturâ parvâ, columellâ excavatâ, basi contortâ, labro simplici.*

THE PRICKLY NASSA. Shell ovately conical, rather solid, white, marked with an indistinct olive band; spire sharp; whorls flatly convex, strongly seriately prickly grained throughout, the uppermost row being rather more distant than the rest, and prominent; aperture small, columella excavated, twisted at the base, lip simple.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Loon, Island of Bohol, Philippines (on the reefs at low water); Cuming.

A prominently prickly sculptured species, chaste in colouring and elegant in form.

Species 38. (Mus. Cuming.)

NASSA MONILE. *Nass. testâ ovato-oblongâ, lævi, nitidâ, albidâ, fasciis roseo-olivaceis luteoque tinctâ; anfractibus plano-convexis, supernè indentatis et granatis, deinde flexuoso-plicatis, basi sulcatis; aperturâ parviusculâ, columellâ labroque callosis, fauce liratâ.*

THE NECKLACE NASSA. Shell ovately oblong, smooth, shining, whitish, stained with rose-olive bands and yellow; whorls flatly convex, indented and grained at the upper part, then flexuously plaited, grooved at the base; aperture rather small, lip and columella callous, interior ridged.

Buccinum monile, Kiener, Icon. coq. vivantes, p. 68. pl. 11. f. 40.

Hab. Philippine Islands; Cuming.

A fine solid species, longitudinally wave-plaited throughout, with a characteristic groove beneath the sutures.

Species 39. (Mus. Cuming.)

NASSA CANDENS. *Nass. testâ acuminato-ovatâ, solidiusculâ, albidâ, fuscescente sparsim tinctâ; spirâ acutissimâ, suturâ angustè canaliculatâ; anfractibus planoconvexis, granato-reticulatis, granis prominentibus, submuricatis, interstitiis pulcherrimè elevato-lineatis; aperturâ parvâ, columellâ excavatâ, corrugatâ, callositate orbiculari erectâ, fauce liratâ.*

THE GLISTENING NASSA. Shell acuminately ovate, rather solid, whitish, sparingly stained with light brown; spire very sharp, narrowly channelled at the suture; whorls flatly convex, granately reticulated, grains prominent, rather prickly, interstices very beautifully elevately lineated; aperture small, columella excavated, wrinkled, with an erect orbicular callosity, interior ridged.

HINDS, Moll. Voy. Sulphur, pl. 9. f. 6 and 7.

Hab. Marquesas Islands; Hinds.

One of the most elaborately sculptured species of the genus, with an erect shining callosity at the aperture.

Species 40. (Mus. Cuming.)

NASSA FASCIATA. *Nass. testâ ovato-conicâ, subfusiformi, albâ, rufo-fusco conspicuè bifasciatâ, undique seriatim granatâ, granis prominentibus, obtusis; aperturâ parviusculâ, columellâ labroque breviliratis.*

THE BANDED NASSA. Shell ovately conical, subfusiform, white, conspicuously two-banded with red-brown, seriately grained throughout, grains prominent, obtuse; aperture rather small, lip and columella short-ridged.

Buccinum fasciatum, Quoy and Gaimard, Moll. Voy. de l'Astrolabe, vol. ii. p. 445. pl. 32. f. 18 to 21.

Nassa fasciata, Deshayes.

Hab. South Australia.

A white, obtusely grained shell, very conspicuously banded with red-brown.

44.

42.a

42.b

43.

44.a

44.b

45.

46.a

46.b

47.

NASSA.

PLATE VII.

Species 41. (Mus. Cuming.)

NASSA NODATA. *Nass. testâ subfusiformi-ovatâ, crassâ, lutescente, basin versus nigricante bifasciatâ, longitudinaliter plicato-costatâ, transversim liratâ, liris filiformibus, costas super nodatis; aperturâ parviusculâ, columellâ brevilaminatâ, labro simplici, fortiter varicoso, fauce breviliratâ.*

THE KNOTTED NASSA. Shell somewhat fusiformly ovate, thick, yellowish, two-banded with faint black towards the base, longitudinally plicately ribbed, transversely ridged, ridges thread-like, knotted on the ribs; aperture rather small, columella short-laminated, lip simple, strongly varicose, interior short-ridged.

HINDS, Moll. Voy. Sulphur, pl. 9. f. 14, 15.

Hab. Straits of Malacca.

A solid ribbed species, encircled with fine thread-like ridges, which are knotted on crossing the ribs.

Species 42. (Mus. Cuming.)

NASSA STIGMARIA. *Nass. testâ ovato-ventricosâ, rufescente, albo-fuscoque variegatâ et punctatâ, transversim et longitudinaliter incisâ, granis intermediis convexo-planis, quadratis; columellâ callosâ, basi corrugatâ, labro simplici, fauce liratâ.*

THE MARKED NASSA. Shell ovately ventricose, reddish, variegated and dotted with white and brown, transversely and longitudinally engraved, intermediate grains convexly flattened and square; columella callous, wrinkled at the base, lip simple, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Siquijor, Philippines (under stones); Cuming.

A curious square-grained species, the sutural row of grains being rather swollen and plaited.

Species 43. (Mus. Cuming.)

NASSA MARGINULATA. *Nass. testâ ovato-acutâ, longitudinaliter plicatâ, sulcis linearibus transversis decussatâ, subgranulosâ; albidâ, olivaceo, fusco et rufo tinctâ et fasciatâ; anfractuum margine superiore crassiusculo, crenulato; columellâ variè callosâ, labro incrassato, fauce liratâ.*

THE MARGINED NASSA. Shell ovately acute, longitudinally plaited, decussated with transverse linear grooves, subgranulose; whitish, stained and banded with olive, brown, and red; upper edge of the whorls rather thick and crenulated; columella variously callous, lip thickened, interior ridged.

Buccinum marginulatum, Lamarck, Anim. sans vert. (Deshayes' edit.) vol. 10. p. 182.

Hab. Mediterranean.

There is mostly a very characteristic brown groove below the sutures.

Species 44. (Mus. Cuming.)

NASSA VENUSTA. *Nass. testâ ovato-acutâ, crassâ, dorso gibbosâ, albidâ, cæruleo lividoque fasciatâ, punctis fuscis bivittatâ, longitudinaliter plicatâ, plicis tenuibus, flexuosis, subirregularibus, liris subtilibus transversis cancellatâ; spirâ breviusculâ, acutâ; columellâ labroque densè callosis, aperturâ parvâ, fauce liratâ.*

THE HANDSOME NASSA. Shell ovately acute, thick, gibbous at the back, whitish, banded with blue and livid, two-filleted with brown dots, longitudinally plaited, plaits thin, flexuous, rather irregular, cancellated with fine transverse ridges; spire rather short, sharp; lip and columella thickly callous, aperture small, interior ridged.

Buccinum venustum, Duncker, Zeitschrift für Malac. 1847, p. 59.

Hab. Isle of Bali, Indian Ocean; Largilliert. Island of Corrigidor, Philippines; Cuming.

A solid characteristic species of a livid-blue colour, encircled above and below the sutures with a fillet of brown dots.

Species 45. (Mus. Cuming.)

NASSA DISPAR. *Nass. testâ ovato-conicâ, crassâ, subventricosâ, cinereâ, albo lentiginosâ, fusco ad suturas et basin punctatâ; anfractibus supernè tumidis et obsoletè nodulosis, prope apicem plicatis; columellâ breviter laminatâ, fauce liratâ.*

THE DIFFERENT NASSA. Shell ovately conical, thick, subventricose, ash-coloured, freckled with white, dotted with brown at the sutures and at the base; whorls swollen and obsoletely nodulous round the upper

part, plaited near the apex; columella shortly laminated, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Camiguing, Philippines (in sandy mud); Cuming.

A smooth solid rather swollen shell, freckled with white upon an ash ground.

Fig. 46. (Mus. Cuming.)

A specimen of a somewhat variable species, *N. crassa*, of which we have selected a more characteristic variety for description at Plate X.

Fig. 47. (Mus. Cuming.)

This shell, *N. Isabellei*, D'Orbigny, we take to be a variety of *N. marginulata*, represented at Fig. 43.

48.

49a.

49b.

50.

51a.

51b.

52.

53a.

53b.

54.

Sowerby del. et lith.

F. Reeve, imp.

NASSA.

PLATE VIII.

Species 48. (Mus. Cuming.)

NASSA GAUDIOSA. *Nass. testâ acuminato-ovatâ, lævigatâ, cinereo-nigricante et fusco fasciatâ, albo lentiginosâ, longitudinaliter plicatâ, plicis ad suturas muconatis, deinde evanescentibus; aperturâ parvâ, fauce liratâ, columella brevi-laminatâ.*

THE JOYFUL NASSA. Shell acuminately ovate, smooth, banded with ash-black and brown, freckled with white, longitudinally plaited, plaits pointed at the sutures, then fading away; aperture small, interior ridged, columella short-laminated.

HINDS, Moll. Voy. Sulphur, pl. 9. f. 16, 17.

Hab. Straits of Malacca; Hinds.

The plaits of this species have the appearance of being worn away in the centre of the whorls.

Species 49. (Mus. Cuming.)

NASSA CRENELLIFERA. *Nass. testâ subacuminato-ovatâ, albidâ, fulvescente obscurè fasciatâ; spirâ acutâ; anfractibus ad suturas concavo-canaliculatis, longitudinaliter crebriliratis, sulcis linearibus decussatis; columellâ subexcavatâ, labro subincrassato, varicoso, fauce liratâ.*

THE CRENULATED NASSA. Shell somewhat acuminately ovate, whitish, obscurely banded with light fulvous; spire sharp; whorls concavely channelled at the sutures, longitudinally closely ridged, decussated with linear grooves; columella slightly excavated, lip rather thickened, varicose, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. ——?

A closely netted species, with a peculiar finely concave channel at the sutures.

Fig. 50 and 51. (Mus. Cuming.)

The shells here figured, though differing much at first sight from those represented in the preceding plate as *N. marginulata*, appear to be varieties of that species. They vary chiefly in having the longitudinal ridges more or less strongly developed, and in being with or without a callosity at the aperture.

Species 52. (Mus. Cuming).

NASSA LACHRYMOSA. *Nass. testâ subfusiformi-ovatâ, lævigatâ, cærulescente-cinereâ, zonulis duabus pallidis cinctâ; anfractibus supernè serie granularum albarum ornatis, granulis duabus pone labrum in plicis descendentibus; columellâ callosâ, labro lativaricoso, fauce liratâ.*

THE WEEPING NASSA. Shell somewhat fusiformly ovate, smooth, bluish-ash, encircled with two pale zones; whorls ornamented at the upper part with a row of white granules, two granules behind the lip descending into plaits; columella callous, lip broadly varicose, interior ridged.

Hab. ——?

A subfusiform species, of an obscurely banded ash colouring, encircled just below the suture with a characteristic row of white granules.

Species 53. (Mus. Cuming).

NASSA SIQUIJORENSIS. *Nass. testâ ovatâ, subturritâ, rufescente, fasciâ pallidâ cinctâ, longitudinaliter costellatâ, costellis permultis confertis, interstitiis striato-cancellatis; suturâ plano-canaliculatâ; columellâ corrugatâ, tenuè laminatâ, labro muricato-denticulato, fauce liratâ.*

THE SIQUIJOR NASSA. Shell ovate, subturreted, reddish, encircled with a pale band, longitudinally finely ribbed, riblets very numerous, close-set, interstices striately cancellated; suture flatly channelled; columella wrinkled, thinly laminated, lip prickly denticulated, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Siquijor, Philippines; Cuming.

Closely allied to *N. crenellifera* in form, sculpture, and painting, though apparently distinct.

Species 54. (Mus. Cuming.)

NASSA PUNCTATA. *Nass. testâ acuminato-ovatâ, lævi, cinereâ, albipunctatâ, lineolis rufis cingulatâ; spirâ acutâ; anfractibus plano-declivibus, ad suturas granocrenulatis, granis fusco punctatis; columellâ laminâ subaurantiâ callosâ expansâ, labro obliquè producto, fauce liratâ.*

THE DOTTED NASSA. Shell acuminately ovate, smooth, ash, dotted with white, encircled with fine red lines; spire sharp; whorls flatly slanting, granosely crenulated at the sutures, grains dotted with brown; columella with an orange-tinted callous expanded lamina, lip obliquely produced, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Puerto Galero, Province of Albay, Island of Luzon, Philippines (in coarse sand at six fathoms); Cuming.

A flatly slanting, sharply acuminated species, of a dark white-freckled ash-colour, with a characteristic grain-crenulated border to the edge of the whorls next the sutures.

55

56.a

56.b

57.a

58.a

58.b

57.b

59.a

59.b

60.

Sowerby, del. et lith.

F. Reeve, imp.

NASSA.

PLATE IX.

Species 55. (Mus. Cuming.)

NASSA DENTICULATA. *Nass. testâ ovato-conicâ, subventricosâ, fulvescente, rufo fasciatâ et maculatâ; anfractibus convexis, longitudinaliter flexuoso-plicatis, plicis rudibus, subnodatis, transversim liratis, liris angustis numerosis, planiusculis; columellâ callo tenui expanso, fauce liratâ, labro minutè denticulato.*

THE DENTICLED NASSA. Shell ovately conical, somewhat ventricose, fulvous, banded and blotched with red; whorls convex, longitudinally flexuously plaited, plaits rude, slightly noduled, transversely ridged, ridges narrow, numerous, and rather flat; columella with a thin expanded callosity, interior ridged, lip minutely denticled.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. ——?

There is some resemblance in the general aspect of this species to young specimens of the common *Buccinum undatum*.

Species 56. (Mus. Cuming.)

NASSA PLICATELLA. *Nass. testâ ovato-conicâ, fulvâ, versus labrum albâ; anfractibus plano-convexis, infernè majoribus, longitudinaliter plicatis, plicis ad suturas obsoletè nodosis, versus labrum parvioribus, numerosis, transversim liratis, liris planulatis; columellâ laminâ tenui, basi uniplicatâ, fauce liratâ, labro minutè denticulato.*

THE FINELY PLAITED NASSA. Shell ovately conical, fulvous, white towards the lip; whorls flatly convex, larger round the lower part, longitudinally plaited, plaits obsoletely noduled at the sutures, smaller and numerous towards the lip, transversely ridged, ridges flattened; columella with a thin lamina, one-plaited at the base, interior ridged, lip minutely denticulated.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Wallwich Bay, Africa.

Allied typically to the European *N. reticulata*.

Species 57. (Mus. Cuming.)

NASSA RETICULATA. *Nass. testâ ovato-conicâ, subfusiformi, fulvescente vel cinereâ, longitudinaliter plicatâ, transversim liratâ, liris angustis, subplanulatis, ad plicas nodulosis; columellâ brevilaminatâ, aperturâ parviusculâ, fauce denticulatâ, labro simplici.*

THE RETICULATED NASSA. Shell ovately conical, somewhat fusiform, fulvous or ash, longitudinally plaited, transversely ridged, ridges narrow, rather flat, nodulous on the plaits; columella short-laminated, aperture rather small, interior denticulated, lip simple.

Buccinum reticulatum, Linnæus, Syst. Nat. (10th edit.) p. 740.

Buccinum pullus, Pennant.

Buccinum vulgatum, Gmelin.

Nassa reticulata, Deshayes.

Hab. Seas of Europe.

The principal variation in this species consists in the plaits being small and close-set, or larger and more distant.

Species 58. (Mus. Cuming.)

NASSA COSTELLIFERA. *Nass. testâ ovato-conicâ, acuminatâ, albidâ, nigricante-castaneo maculatâ et interruptè fasciatâ, liris subtilibus longitudinalibus et transversis undique granulato-decussatâ, canali lævi infra suturas cingulatâ; aperturâ parviusculâ, columellâ corrugatâ, brevilaminatâ, fauce liratâ.*

THE FINE-RIBBED NASSA. Shell ovately conical, acuminated, whitish, blotched and interruptedly banded with blackish-chestnut, granulately decussated throughout with fine longitudinal and transverse ridges, encircled with a smooth canal beneath the sutures; aperture rather small, columella wrinkled, short-laminated, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Curimao, Philippines; Cuming.

A fine characteristic species of solid growth, granulated throughout by the crossing of numerous longitudinal and transverse ridges.

Species 59. (Mus. Cuming.)

NASSA MARGARITIFERA. *Nass. testâ ovato-conicâ, albidâ, rufo-fusco marmoratâ, longitudinaliter plicato-costellatâ, transversim densè liratâ, liris ad costellis nodulosis; spirâ acuminatâ, ad suturas subcanaliculatâ; columellâ subexcavatâ, labro incrassato ascendente, aperturæ fauce liratâ.*

THE PEARLY NASSA. Shell ovately conical, whitish, marbled with red-brown, longitudinally plicately ribbed, transversely densely ridged, ridges noduled on the ribs; spire acuminated, a little channelled at the sutures; columella slightly excavated, lip thickened, ascending, interior of the aperture ribbed.

Buccinum margaritiferum, Dunker, Zeitschrift für Malac. 1847, p. 60.

Hab. ——?

A very elaborately sculptured and beautiful species.

Species 60. (Mus. Cuming.)

NASSA PALLIDA. *Nass. testâ acuminato-conicâ, pallidâ, olivaceo et cinereo tinctâ; anfractibus supernè declivibus et leviter angulatis, transversim sulcatis et rugoso-striatis, longitudinaliter plicato-costatis, costis ad angulum tuberculatis; columellâ subcontortâ, labro incrassato, fauce liratâ.*

THE PALE NASSA. Shell acuminately conical, pale, tinged with olive and ash; whorls slanting and slightly angled at the upper part, transversely grooved and roughly striated, longitudinally plicately ribbed, ribs tubercled on the angle; columella somewhat twisted, lip thickened, interior ridged.

POWIS, Pro. Zool. Soc. 1835, p. 96.

Hab. Panama (in sandy mud at six fathoms); Cuming.

An abnormal form of the genus, referable rather to *Buccinum*.

61.

62.a

62.b

63.

64.a

64.b

65.

66.a

66.b

67.

Sowerby, del. et lith.

F. Reeve, imp.

NASSA.

PLATE X.

Species 61. (Mus. Cuming.)

NASSA BIMACULOSA. *Nass. testâ suborbiculari, apud dorsum valde gibbosâ, tuberculatâ; spirâ acutâ, longitudinaliter subplicatâ, anticè transversim sulcatâ, olivaceâ, fasciâ pallidâ cinctâ, labio cum callo crasso albo magno suborbiculari cincto; columellâ lævi, anticè uniplicatâ; labro valdè incrassato, marginato, anticè sinuato, intus lirato, extus maculis duabus rufo-fuscis ornato.*

THE TWO-SPOTTED NASSA. Shell suborbicular, very gibbous at the back, tubercled; spire sharp, longitudinally subplicated, anteriorly transversely grooved, olive, encircled with a pale band, lip encircled by a large nearly orbicular thick white callosity; columella smooth, one-plaited in front; lip much thickened, margined, sinuated in front, ridged within, ornamented externally with two reddish-brown blotches.

A. ADAMS, Pro. Zool. Soc. 1851.

Hab. Island of Siquijor, Philippines (on mud-banks); Cuming.

A solid dwarf-like species, with a wide-spread thickened callosity.

Species 62. (Mus. Cuming.)

NASSA GLOBOSA. *Nass. testâ globosâ, turgidâ, dorso valdè gibbosâ, tuberculatâ, longitudinaliter tenuiplicatâ, transversim striatâ, obsoletè granulosâ; spirâ brevi, acutâ; aperturâ minimâ, callo peramplo crasso orbiculari, lutescente.*

THE GLOBOSE NASSA. Shell globose, swollen, very gibbous at the back, tuberculated, longitudinally finely plaited, transversely striated, obsoletely granuled; spire short, sharp; aperture very small, with a very large thick orbicular yellowish callosity.

Buccinum globosum, Quoy and Gaimard, Zool. Voy. de l'Astrolabe, vol. ii. p. 448. pl. 32. f. 25 to 27.

Buccinum clathratum, Kiener.

Hab. Island of Vanikoro and New Ireland; Quoy.

A very gibbous solid species, finely latticed throughout, with a thick wide-spreading callosity.

Species 63. (Mus. Cuming.)

NASSA LUTEOSTOMA. *Nass. testâ pyramidali-conicâ, ventricosâ, cæruleo-fuscâ; spirâ subturritâ; anfractibus supernè concavo-angulatis, ad angulum plicato-tuberculatis, lineis fuscis cingulatis; aperturâ parviusculâ, columellâ labroque callosis, aurantio-luteis.*

THE YELLOW MOUTH NASSA. Shell pyramidally conical, ventricose, blue-brown; spire subturreted; whorls concavely angled round the upper part, plicately tubercled at the angle, encircled with brown lines; aperture rather small, lip and columella callous, orange-yellow.

KIENER, Icon. coq. vivantes, p. 110. pl. 30. f. 1.

Hab. Senegal.

Of a peculiar bluish colour externally, while the enamel of the lip and columella is a bright orange-yellow.

Species 64. (Mus. Cuming.)

NASSA GIBBOSULA. *Nass. testâ ovatâ, crassâ, dorso gibbâ et tuberculatâ, lævi, olivaceâ, cærulescente-albo lentiginosâ; spirâ brevi, acutâ; aperturâ parvâ, callositate crassâ peramplâ ferè usque ad apicem repandâ, callositate albâ, intensè aurantio-rufo marginatâ.*

THE GIBBOUS NASSA. Shell ovate, thick, gibbous and tubercled at the back, smooth, olive, freckled with bluish-white; spire short, sharp; aperture small, with a very large thick callosity spread out nearly to the apex, callosity white, deep orange-red at the edge.

Buccinum gibbosulum, Linnæus, Syst. Nat. (12th edit.) p. 1201.

Nassa gibbosula, Lamarck.

Hab. Philippine Islands; Cuming.

A very solid gibbous tubercled species, smooth, white-freckled on olive, with a large callous enamel disc around the aperture.

Species 65. (Mus. Cuming.)

NASSA THERSITES. *Nass. testâ ovato-acutâ, crassâ, valdè gibbosâ et tuberculatâ, obliquè plicatâ, dorso lævi, olivaceo-cinereâ vel cærulescente; aperturâ parvâ, callositate amplâ orbiculari, lutescente, fauce liratâ.*

THE THERSITES NASSA. Shell ovately acute, thick, very gibbous and tubercled, obliquely plaited, smooth at the back, olive-ash or bluish; aperture small, with a large orbicular yellowish callosity, interior ridged.

Buccinum Thersites, Bruguière, Encyclopédie Méthodique, pl. 394. f. 8.

Nassa Thersites, Lamarck.

Hab. Philippine Islands; Cuming.

A more stoutly gibbous species than the preceding, with a more sharply acuminated spire. The callosity is tinged with yellow.

Species 66. (Mus. Cuming.)

NASSA CALLOSPIRA. *Nass. testâ ovatâ, pallidâ, fasciâ cinereâ angulatâ; spirâ acutâ, transversim liratâ, plicis nodosis longitudinalibus instructâ; labio cum callo magno albo extenso tecto, marginibus usque ad spiram decurrentibus; columellâ anticè biplicatâ; labro crasso, calloso, marginato, fauce valdè lirato.*

THE CALLOUS-SPIRE NASSA. Shell ovate, pale, encircled with an ash band; spire sharp, transversely ridged, furnished with nodose longitudinal plaits; lip covered with a large white callosity, the edge of which reaches the spire; columella biplicate; lip thick, callous, edged, much ridged within.

A. ADAMS, Pro. Zool. Soc. 1851.

Hab. Island of Burias, Philippines (in coral sand at six fathoms); Cuming.

A solid gibbous tuberculately species, finely reticulately sculptured, with a wide-spread orbicular callosity.

Species 67. (Mus. Cuming.)

NASSA CRASSA. *Nass. testâ ovatâ, crassâ, solidâ, albidâ aut flavescente, interdum cæruleo-fusco fasciatâ; spirâ brevi; anfractibus supernè concavo-declivibus, longitudinaliter granuloso-plicatis, plicis subdistantibus, plus minus evanidis; aperturâ parvâ, columellâ labroque valdè callosis, callositate non expansâ, fauce liratâ.*

THE THICK NASSA. Shell ovate, thick, solid, whitish or yellowish, sometimes banded with blue-brown; spire short; whorls concavely slanting round the upper part, longitudinally granulously plaited, plaits rather distant, more or less fading; aperture small, lip and columella very callous, callosity not spread, interior ridged.

Buccinum crassum, Koch, Philippi Abbild. und Besch. Conch. pl. 1. f. 4. p. 43.

Hab. China; Largilliert.

A solid species, in which the lip and columella are very callous at the junction on the body-whorl, but the callosity is not spread.

68.

69a.

69b.

70.

71a.

71b.

72.

73a.

73b.

74.

G. Sowerby, del. et lith.

F. Reeve, imp.

NASSA.

PLATE XI.

Species 68. (Mus. Cuming.)

NASSA RAVIDA. *Nass. testâ ovatâ, acuminatâ, subturritâ, rufescente, cingulis transversis granosis sculptâ, granis elongatis subquadratis in seriebus obliquis longitudinalibus dispositis; columellâ rugosâ, brevilaminatâ, labro denticulato.*

THE TAWNY NASSA. Shell ovate, acuminated, subturreted, reddish, sculptured with transverse granose belts, the grains being elongated and somewhat square, disposed in oblique longitudinal rows; columella rough, shortly laminated, lip denticulated.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Burias, Philippines (in coral sand at six fathoms); Cuming.

The general aspect of this species, in respect of form and sculpture, reminds one of a group of *Mitra*.

Species 69. (Mus. Cuming.)

NASSA HORRIDA. *Nass. testâ ovato-globosâ, crassâ, albidâ, luteo et nigricante-fusco variegatâ, transversim sulcatâ, longitudinaliter plicatâ, plicis noduliferis, aspersis, submuricatis; aperturâ subrotundâ, columellâ laminatâ, labro lativaricoso.*

THE RUGGED NASSA. Shell ovately globose, thick, whitish, variegated with yellow and blackish-brown, transversely grooved, longitudinally plaited, plaits noduliferous, rough, somewhat prickly; aperture nearly round, columella laminated, lip broadly varicose.

Buccinum horridum, Dunker, Zeitschrift für Malac. 1847, p. 59.

Hab. ——?

A small globose, prickly, plaited shell, variegated with black and brown upon a white ground.

Species 70. (Mus. Cuming.)

NASSA VARIEGATA. *Nass. testâ ovato-ventricosâ, albido-griseâ, fusco variegatâ, longitudinaliter striatâ, liris transversis granosis subdistantibus ornatâ, granis rotundis in seriebus obliquis longitudinalibus dispositis; spirâ breviusculâ, acutâ, canaliculatâ; columellâ corrugatâ, callo tenui expanso, labro margine crenato, fauce liratâ.*

THE VARIEGATED NASSA. Shell ovately ventricose, whitish-grey, variegated with brown, longitudinally striated, ornamented with rather distant transverse ridges of grains, grains rounded, disposed in oblique longitudinal rows; spire rather short, sharp, channelled; columella wrinkled, with a thin expanded lamina, lip crenated at the edge, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Dalaguete, Island of Negros, Philippines; Cuming.

An elegantly formed, subventricose shell, strongly grained throughout, and having a sharp channelled spire.

Species 71. (Mus. Cuming.)

NASSA CIRCUMCINCTA. *Nass. testâ oblongo-ovatâ, cinereâ, nitidâ, dorso subgibbosâ; spirâ brevissimâ, obtusâ; suturâ fuscâ; columellâ excavatâ, callo peramplo crassissimo albo, fusco marginato, usque ad apicem repando, labro calloso, lævi.*

THE GIRDLED NASSA. Shell oblong-ovate, ash, shining, rather gibbous at the back; spire very short, obtuse; suture brown; columella excavated, with a very large, thick, white, brown-edged callosity, spread out as far as the apex, lip callous, smooth.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Red Sea.

A very singular and unique form of *Nassa*, having quite the appearance of a *Marginella*.

Species 72. (Mus. Cuming.)

NASSA GRANIFERA. *Nass. testâ ovatâ, crassâ, albâ, muricato-tuberculatâ, tuberculis parvis distantibus regularibus; aperturâ parvâ, columella excavatâ, callo peramplo albo usque ad apicem fere repando, labro incrassato.*

THE GRANIFEROUS NASSA. Shell ovate, thick, white, prickly tubercled, tubercles small, distant, regular; aperture small, columella excavated, with a large white callosity, spread out nearly as far as the apex, lip thickened.

Buccinum graniferum, Kiener, Icon. coq. vivantes, p. 100. pl. 27. f. 111.

Hab. Isle of Bohol, Philippines; Cuming.

A solid, white shell, finely prickly-tubercled throughout, with a very thick callosity, reaching nearly to the spire.

Species 73. (Mus. Cuming.)

NASSA MURICATA. *Nass. testâ ovato-globosâ, lutescente, violaceo-fusco tinctâ, muricato-nodosâ, nodis distantibus, erectis; aperturâ parvâ, columellâ labroque subcallosis.*

THE PRICKLY NASSA. Shell ovately globose, yellowish, tinged with violet-brown, prickly nodose, nodules rather distant, erect; aperture small, lip and columella rather callous.

Buccinum muricatum, Quoy and Gaimard, Zool. Voy. de l'Astrolabe, vol. ii. p. 450. pl. 32. f. 32, 33.

Hab. New Ireland.

Prickly noduled like the preceding species, but destitute of any spreading callosity.

Fig. 74. (Mus. Cuming.)

The specimen here figured proves to be a variety of *N. ravida*, Fig. 68, of rather stouter growth and finer sculpture, from Malacca.

A solid, white shell, finely prickly-tubercled throughout, with a very thick callosity, reaching nearly to the spire.

Species 73. (Mus. Cuming.)

NASSA MURICATA. *Nass. testâ ovato-globosâ, lutescente, violaceo-fusco tinctâ, muricato-nodosâ, nodis distantibus, erectis; aperturâ parvâ, columellâ labroque subcallosis.*

THE PRICKLY NASSA. Shell ovately globose, yellowish, tinged with violet-brown, prickly nodose, nodules rather distant, erect; aperture small, lip and columella rather callous.

Buccinum muricatum, Quoy and Gaimard, Zool. Voy. de l'Astrolabe, vol. ii. p. 450. pl. 32. f. 32, 33.

Hab. New Ireland.

Prickly noduled like the preceding species, but destitute of any spreading callosity.

Fig. 74. (Mus. Cuming.)

The specimen here figured proves to be a variety of *N. ravida*, Fig. 68, of rather stouter growth and finer sculpture, from Malacca.

A solid, white shell, finely prickly-tubercled throughout, with a very thick callosity, reaching nearly to the spire.

Species 73. (Mus. Cuming.)

NASSA MURICATA. *Nass. testâ ovato-globosâ, lutescente, violaceo-fusco tinctâ, muricato-nodosâ, nodis distantibus, erectis; aperturâ parvâ, columellâ labroque subcallosis.*

THE PRICKLY NASSA. Shell ovately globose, yellowish, tinged with violet-brown, prickly nodose, nodules rather distant, erect; aperture small, lip and columella rather callous.

Buccinum muricatum, Quoy and Gaimard, Zool. Voy. de l'Astrolabe, vol. ii. p. 450. pl. 32. f. 32, 33.

Hab. New Ireland.

Prickly noduled like the preceding species, but destitute of any spreading callosity.

Fig. 74. (Mus. Cuming.)

The specimen here figured proves to be a variety of *N. ravida*, Fig. 68, of rather stouter growth and finer sculpture, from Malacca.

75.

76.a

76.b

77.

78.a

78.b

79.

80.a

80.b

81.

Sowerby, del. et. lith.

F. Reeve, imp.

NASSA.

PLATE XII.

Species 75. (Mus. Cuming.)

NASSA GRUNERI. *Nass. testâ ovato-acutâ, crassiusculâ, albidâ, livido seu spadiceo trifasciatâ, plicis longitudinalibus nodiferis sulcisque transversis decussatâ, muricatâ; spirâ brevi, acutâ; anfractibus planiusculis, supernè angulatis; columellâ brevilaminatâ, basi uniplicatâ, labro crasso.*

GRUNER'S NASSA. Shell ovately acute, rather thick, whitish, encircled with three livid or fawn bands, decussated with longitudinal nodiferous plaits and transverse grooves, prickly; spire short, sharp; whorls rather flat, angled at the upper part; columella shortly laminated, one-plaited at the base, lip thick.

Buccinum Gruneri, Dunker, Zeitschrift für Malac. 1846. p. 171.

Hab. Philippine Islands; Cuming.

A sharply prickly nodose species, having somewhat a *Ricinula* aspect.

Species 76. (Mus. Cuming.)

NASSA PLANICOSTATA. *Nass. testâ subfusiformi-ovatâ, cinereâ, interdum fasciâ rufescente-fuscâ cingulatâ; spirâ breviusculâ, acutâ; anfractibus longitudinaliter plicato-costellatis, interstitiis concinnè cancellatis, basi sulcatis; columellâ brevi-laminatâ; aperturâ subangustè ovatâ, fauce liratâ, labro incrassato, denticulato.*

THE FLAT-RIBBED NASSA. Shell somewhat fusiformly ovate, ash-coloured, sometimes encircled with a reddish band; spire rather short, sharp; whorls longitudinally plicately fine-ribbed, interstices neatly latticed, grooved at the base; columella short-laminated; aperture rather narrowly ovate, interior ridged, lip thickened, denticulated.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Payta, Peru (under stones at low water); Cuming.

The riblets become fainter as the shell increases in growth, almost disappearing at the lip.

Species 77. (Mus. Cuming.)

NASSA ANTILLARUM. *Nass. testâ ovato-turritâ, cinereo-fuscâ, flavo-fasciatâ, obliquè plicato-costatâ, liris transversis decussatâ; anfractibus supernè subconcavis, deinde rotundatis; columellâ subexpansâ, basi contortâ, labro crassè varicoso.*

THE WEST INDIA NASSA. Shell ovately turreted, ash-brown, yellow-banded, obliquely plicately ribbed, decussated with transverse ridges; whorls rather concave round the upper part, then rounded; columella slightly expanded, twisted at the base, lip thickly varicose.

Buccinum Antillarum, Philippi, Zeitschrift für Malac. 1848, p. 139.

Hab. Cuba.

Sculptured obliquely with cross-ridged ribs, which are somewhat distant in passing over the rounded portion of the whorls.

Species 78. (Mus. Cuming.)

NASSA SEMIPLICATA. *Nass. testâ subacuminato-ovatâ, lutescente-albâ, rufo-fusco bifasciatâ, longitudinaliter plicato-costatâ, costis tenuibus, in anfractu ultimo evanidis; columellâ brevilaminatâ; aperturâ parvâ, subrotundatâ, labro crassè varicoso, margine minutè denticulato.*

THE HALF-PLAITED NASSA. Shell somewhat acuminately ovate, yellowish-white, encircled with two red-brown bands, longitudinally plicately ribbed, ribs thin, fading away in the last whorl; columella short-laminated; aperture small, rather rounded, lip thickly varicose, minutely denticled at the edge.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Chusan; Benson.

A very characteristic *Scalaria*-like species.

Species 79. (Mus. Cuming.)

NASSA OBSOLETA. *Nass. testâ ovatâ, solidiusculâ, olivaceo-nigricante, apice erosâ; spirâ brevi; anfractibus convexo-planis, transversim tenuiliratis, liris superficiariis subirregularibus; aperturâ parviusculâ, columellâ excavatâ, planatâ, basi truncatâ, labro simplici.*

THE OBSOLETE NASSA. Shell ovate, rather solid, olive-blackish, eroded at the apex; spire short; whorls convexly flat, transversely finely ridged, ridges superficial, rather irregular; aperture rather small, columella excavated, flattened, truncated at the base, lip simple.

SAY, Journ. Acad. Nat. Sci. Philadelphia, vol. ii. p. 232.

Hab. New York.

Of a very distinct typical form, resembling *Achatinella.*

Species 80. (Mus. Cuming,)

NASSA SUCCINCTA. *Nass. testâ acuminato-turritâ, lævi, cinerascente, fasciis duabus rufescentibus cinctâ; anfractibus planulatis, supremis costellatis; suturâ subcanaliculatâ; columellâ subincrassatâ, labro posticè inflexo, anticè valdè sinuato et dentato, crassè varicoso, fauce liratâ.*

THE BELTED NASSA. Shell acuminately turreted, smooth, light ash, encircled with two reddish bands; whorls flattened, the uppermost finely ribbed; suture slightly channelled; columella rather thickened, lip posteriorly reflected, anteriorly very much sinuated and toothed, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Masbate, Philippines; Cuming.

A smooth flat-whorled aciculated species, encircled with red-brown bands upon a yellowish ground.

Species 81. (Mus. Cuming.)

NASSA VIBEX. *Nass. testâ ovatâ, crassiusculâ, cinereâ, zonulis fuscis et cæruleis cingulatâ; anfractibus supernè angulatis, longitudinaliter plicatis, plicis liris muricato-nodosis decussatis; aperturâ parviusculâ, columellâ subexcavatâ, labro simplici.*

THE BLACK AND BLUE NASSA. Shell ovate, rather thick, ash, encircled with brown and blue zones; whorls angled round the upper part, longitudinally plaited, plates decussated with prickly nodose ridges; aperture rather small, columella slightly excavated, lip simple.

SAY, American Conchology, pl. 57.

Hab. Island of Masbate, Philippines; Cuming.

A prickly *Ricinula*-like species, allied to *N. Gruneri.*

82.

83.

83.b

84.

85.a

85.

86.

87.a

87.b

88.

NASSA.

PLATE XIII.

Species 82. (Mus. Cuming.)

NASSA CONCINNA. *Nass. testâ ovato-conicâ, peracutâ, pallidè fulvâ, fasciis saturatioribus cinctâ, longitudinaliter creberrimè undato-plicatâ, striis impressis confertis eleganter decussatâ; anfractibus rotundatis, granulis moniliformibus ad suturas; aperturâ ovali, columellâ subrugosâ, labro crassè varicoso, fauce liratâ.*

THE PRETTY NASSA. Shell ovately conical, very sharp, light fulvous, encircled with darker bands, longitudinally very closely wave-plaited, elegantly decussated with close-set impressed striæ; whorls rounded, with a necklace of grains at the sutures; aperture oval, columella rather rough, lip thickly varicose, interior ridged.

POWIS, Pro. Zool. Soc. 1835, p. 95.

Hab. Toobouai, Polynesia (on the reefs); Cuming.

A pretty, close, concentric wave-ridged shell, with a thick white varix behind the lip.

Species 83. (Mus. Cuming.)

NASSA FOVEOLATA. *Nass. testâ oblongo-ovatâ, albidâ, longitudinaliter densè plicato-costellatâ, interstitiis cancellatis; columellâ subrugosâ, labro varicoso.*

THE PITTED NASSA. Shell oblong-ovate, whitish, longitudinally densely plicately fine-ribbed, interstices cancellated; columella subrugose, lip varicose.

DUNKER, MSS. (Mus. Cuming.)

Hab. ——?

A cancellated species, allied to the preceding, with the longitudinal riblets less close together.

Species 84. (Mus. Cuming.)

NASSA LEPTOSPIRA. *Nass. testâ ovatâ, dorso gibbosâ; spirâ productâ, acutâ, lutescente-cinereâ, longitudinaliter plicatâ, interstitiis cancellatis, basi liratâ; columellâ corrugatâ, callo luteo crasso latè repando, fauce liratâ.*

THE THIN-SPIRED NASSA. Shell ovate, gibbous at the back; spire produced, sharp, yellowish-ash, longitudinally plaited, interstices cancellated, ridged at the base; columella wrinkled, with a thick wide-spread yellow callosity, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Ilo Ilo, Isle of Panay, Philippines (on mud-banks at low water); Cuming.

A gibbose, close, concentrically plaited species, with a wide-spread callosity and sharp apex.

Fig. 85. (Mus. Cuming.)

A delicate, pink-freckled variety of *N. gaudiosa*, described at Plate VIII.

Species 86. (Mus. Cuming.)

NASSA MIGA. *Nass. testâ ovato-turritâ, longitudinaliter obliquè plicatâ, lineis impressis cingulatâ, lutescente aut rosaceâ; aperturâ parvâ, subrotundâ, columellâ brevilaminatâ, fauce liratâ.*

THE MIGA NASSA. Shell ovately turreted, longitudinally obliquely plaited, encircled with impressed lines, yellowish or pink; aperture small, somewhat rounded, columella short-laminated, interior ridged.

Le Miga, Adanson, Voy. au Sénégal, pl. 8. f. 10.

Buccinum Miga, Bruguière.

Nassa Miga, Deshayes.

Hab. Coasts of Barbary and West Africa.

The plaited ribs of this species run obliquely from right to left, not from left to right, as is commonly the case.

Species 87. (Mus. Cuming.)

NASSA GAYI. *Nass. testâ ovato-angustâ, acuminatâ, fuscescente, longitudinaliter plicatâ, transversim striatâ, granulosâ; anfractibus convexiusculis, ad suturas marginatis; columellâ vix callosâ; aperturâ parvâ, albâ, ovatâ, fauce liratâ.*

GAY'S NASSA. Shell ovately narrow, acuminated, brownish, longitudinally plicated, transversely striated, granulated; whorls rather convex, margined at the sutures; columella scarcely callous; aperture small, white, ovate, interior ridged.

KIENER, Icon. coq. vivantes, p. 71. pl. 21. f. 79.

Hab. Coast of Peru.

A brown, acuminated, grain-plaited species, with a small aperture.

Species 88. (Mus. Cuming.)

NASSA FIDA. *Nass. testâ subglobosâ, crassâ, longitudinaliter plicatâ, plicis subdistantibus, conspicuè granosis, lutescente-albâ, cinereo unifasciatâ; spirâ brevi; anfractibus supernè concavo-indentatis; aperturâ parvâ, columellâ brevilaminatâ, subrugosâ.*

THE TRUSTY NASSA. Shell subglobose, thick, longitudinally plaited, plaits rather distant, conspicuously granose, yellowish-white, encircled with an ash band; spire short; whorls concavely indented round the upper part; aperture small, columella short-laminated, subrugose.

Hab. ——?

A small, stout, rather prickly grained shell, each whorl being concavely indented below the suture.

89.

90.a

90.b

91.

92.a

92.b

93.

94.a

94.b

95.

NASSA.

PLATE XIV.

Species 89. (Mus. Cuming.)

NASSA SERTULA. *Nass. testâ acuminato-ovatâ, lævi, nitidâ, rufescente-fulvâ, albo nebulosâ; anfractibus convexiusculis, prope apicem tenuiplicatis; columellâ brevilaminatâ, labro subincrassato, varicoso, fauce liratâ.*

THE MEDLICOT NASSA. Shell acuminately ovate, smooth, shining, reddish-fulvous, clouded with white; whorls rather convex, finely plaited near the apex; columella short-laminated, lip rather thickened, varicose, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Masbate, Philippines (on the reefs); Cuming.

Of a smooth, shining, rusty-brown aspect, relieved by a few white wave-spots.

Species 90. (Mus. Cuming.)

NASSA PULCHELLA. *Nass. testâ acuminato-turritâ, nitidâ, albidâ, luteo variegatâ, rufo-fusco vittatâ, longitudinaliter plicato-costatâ, costis flexuosis, subdistantibus, supernè obsoletè nodulosis, columellâ tenuicallosâ; aperturâ parvâ, labro varicoso.*

THE PRETTY NASSA. Shell acuminately turreted, shining, whitish, variegated with yellow, filleted with reddish-brown, longitudinally plicately ribbed, ribs flexuous, rather distant, obsoletely noduled at the upper part; columella thinly callous; aperture small, lip varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Cape of Good Hope.

A delicately red-filleted, turreted shell, with the ribs waving flexuously from right to left.

Fig. 91. (Mus. Cuming.)

The shell here figured is the original type of *N. concinna*, Powis, described in the preceding Plate.

Species 92. (Mus. Cuming.)

NASSA TIARULA. *Nass. testâ ovatâ, lutescente-albâ, interdum pallidè fasciatâ; spirâ acutâ; anfractibus obsoletè striatis, supernè angulatis, ad angulum nodoso-tuberculatis; columellâ callo subrepando, labro crassè varicoso.*

THE LITTLE TURBAN NASSA. Shell ovate, yellowish-white, sometimes faintly banded; spire sharp; whorls obsoletely striated, angled round the upper part, nodosely tubercled at the angle; columella with a somewhat spread callosity, lip thickly varicose.

KIENER, Icon. coq. vivantes, p. 111. pl. 30. f. 4.

Hab. Madagascar.

Chiefly distinguished by its crown of nodose tubercles.

Species 93. (Mus. Cuming.)

NASSA ZONALIS. *Nass. testâ ovatâ, crassâ, lævigatâ, lutescente-albâ, purpureo-castaneo vividè trizonatâ, ad suturas subobsoletè plicato-nodulosâ, basi sulcatâ; aperturâ parvâ, fauce liratâ, columellâ callosâ, labro incrassato.*

THE ZONED NASSA. Shell ovate, thick, smooth, yellowish-white, encircled with three deep purple-chestnut bands, rather obsoletely plicately noduled at the sutures, grooved at the base; aperture small, interior ridged, columella callous, lip thickened.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Ticao, Philippines (on the reefs); Cuming.

A solid, purple-chestnut, banded species, having somewhat the aspect of a *Tornatella*.

Fig. 94. (Mus. Cuming.)

A variety of *N. planicostata*, Sp. 76, in which the ribs are larger, and of a peculiar livid aspect.

Species 95. (Mus. Cuming.)

NASSA LIRELLA. *Nass. testâ ovatâ, crassiusculâ, albidâ, ferrugineo-fusco obscurè maculatâ, longitudinaliter nodoso-plicatâ, plicis subflexuosis, striis impressis transversis decussatis; anfractibus sulco prope suturas cingulatis; aperturâ parvâ, columellâ crassè callosâ, labro varicoso.*

THE LITTLE HARP NASSA. Shell ovate, rather thick, whitish, obscurely blotched with rust-brown, longitudinally nodosely plicated, plaits slightly flexuous, decussated with impressed striæ; whorls encircled near the sutures with a groove; aperture small, columella thickly callous, lip varicose.

BECK, MSS. Mus. Cuming.

Hab. ——?

The specimen here figured is not in very good condition, but it is characteristic in form and sculpture.

96.

97.a

97.b

98.

99.a

99.b

100.

101.b

101.a

102.

NASSA.

PLATE XV.

Species 96. (Mus. Cuming.)

NASSA SORDIDA. *Nass. testâ ovatâ, albidâ, fuscescente fasciatâ; spirâ subacutâ, suturâ canaliculatâ; longitudinaliter costatâ, costis acutis, numerosis, lineis impressis decussatis; columellâ calloso-laminatâ, labro subincrassato.*

THE SORDID NASSA. Shell ovate, whitish, banded with light brown; spire rather sharp, suture channelled; longitudinally ribbed, ribs sharp, numerous, decussated with impressed lines; columella callously laminated, lip rather thickened.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Siquijor, Philippines (on the reefs); Cuming.

A close-ribbed species rather impressed at the sutures, with very much the aspect of a *Cancellaria*.

Species 97. (Mus. Cuming.)

NASSA NODICOSTATA. *Nass. testâ ovato-conicâ, albidâ, fasciâ pallidè fulvâ interruptâ cinctâ; anfractibus planulatis, supernè angulatis, longitudinaliter costatis, costis angustis, distantibus, peculiariter nodulatis; columellâ excavatâ, labro subincrassato, varicoso.*

THE KNOTTED-RIBBED NASSA. Shell ovately conical, whitish, encircled with a light fulvous interrupted band; ribs flattened, angled round the upper part, longitudinally ribbed, ribs narrow, distant, peculiarly noduled; columella excavated, lip rather thickened, varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Corrigidor, Philippines (in coarse sand at six fathoms); Cuming.

This pretty species, like the preceding, has very much the aspect of a *Cancellaria*.

Species 98. (Mus. Cuming.)

NASSA TEGULA. *Nass. testâ ovato-conicâ, subgibbosâ, lævi, nigricante-cinereâ, fasciâ lutescente cinctâ; spirâ brevi usculâ, acutâ; anfractibus supernè angulatis, ad angulum tuberculatis; aperturâ parvâ, columellâ arcuatâ, callositate tenui repando, labro crassè varicoso.*

THE SLATE NASSA. Shell ovately conical, rather gibbous, smooth, blackish-ash, encircled with a yellowish band; spire rather short, sharp; whorls angled at the upper part, tubercled at the angle; aperture small, columella arched, with a thin spread callosity; lip thickly varicose.

Hab. ——?

A gibbous tubercled species of a peculiar livid slate-colour, encircled with a yellowish band.

Species 99. (Mus. Cuming.)

NASSA CORONULA. *Nass. testâ ovato-conicâ, olivaceo-cinereâ, albifasciatâ; spirâ brevi; anfractibus ad suturas angulatis, longitudinaliter costatis, costis distantibus, solidis, ad angulum obtusè nodatis, albidis; aperturâ minutâ, columellâ callosâ, rugosâ, labro incrassato, fauce liratâ.*

THE LITTLE CROWN NASSA. Shell ovately conical, olive-ash, white-banded, spire short; whorls angled at the sutures, longitudinally ribbed, ribs distant, solid, obtusely noduled at the angles, whitish; aperture very small, columella callous, rugose, lip thickened, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Corrigidor, Philippines (under stones at low water); Cuming.

A very solid wide-ribbed species, with somewhat the aspect of a miniature Volute.

Species 100. (Mus. Cuming.)

NASSA ALBESCENS. *Nass. testâ ovatâ, albâ; anfractibus convexis, plicis tenuibus longitudinalibus obliquis lirisque transversis densè noduloso-cancellatis; columellâ excavatâ, callositate subrepandâ, fauce incrassatâ, liratâ, labro simplici.*

THE WHITISH NASSA. Shell ovate, white; whorls convex, densely nodulously cancellated with thin longitudinal oblique plaits and transverse ridges; columella excavated, with a slightly spread callosity, interior thickened, lip simple.

Buccinum albescens, Dunker, Philippi, Abbild. und Besch. Conch. p. 68. pl. 2. f. 15.

Hab. West Indies.

A delicate opake white shell, densely cancellated throughout.

Species 101. (Mus. Cuming.)

NASSA EXILIS. *Nass. testâ cylindraceo-ovatâ, olivaceâ vel purpureo-nigricante obscurè fasciatâ; spirâ acuminatâ; anfractibus longitudinaliter plicato-costatis, costis flexuosis, ad suturas granulatis; aperturâ parvâ, parum callosâ, labro incrassato.*

THE SLENDER NASSA. Shell cylindrically ovate, obscurely banded with olive or purple-black; spire acuminated; whorls longitudinally plicately ribbed, ribs flexuous, granulated at the sutures; aperture small, but little callous, lip thickened.

POWIS, Pro. Zool. Soc. 1835, p. 95.
Hab. Payta, Peru (under stones); Cuming.

A livid dark species, of a cylindrically ovate form, delicately flexuously ribbed.

Fig. 102. (Mus. Cuming.)

A characteristic variety of *N. pauperata* represented at Plate VI. Sp. 27.

103.

104.a

104.b

105.

106.a

106.b

107.

108.a

108.b

109.

Sowerby, del. et lith.

F. Reeve imp.

NASSA.

PLATE XVI.

Species 103. (Mus. Cuming.)

NASSA MACULATA. *Nass. testâ angustè acuminatâ, lævi, politâ, lineis impressis distantibus cingulatâ, albâ, maculis rufo-fuscis longitudinaliter flexuosis bifasciatim cinctâ; aperturâ parvâ, fauce liratâ, columellâ brevilaminatâ, basi plicatâ et subproductâ, labro varicoso.*

THE BLOTCHED NASSA. Shell narrowly acuminated, smooth, polished, encircled with distant impressed lines, white, encircled with two bands of longitudinally flexuous red-brown spots; aperture small, interior ridged, columella short-laminated, plaited and rather produced at the base, lip varicose.

Aciculina maculata, A. Adams, Pro. Zool. Soc. March 1851.

Hab. Isle of Luzon, Philippines (in muddy sand at low water); Cuming.

A polished *Eulima*-like species, faintly spotted with brown.

Species 104. (Mus. Cuming.)

NASSA TERETIUSCULA. *Nass. testâ subturritâ, lutescente aut cinereo-olivaceâ, fasciâ aut lineâ rufâ cingulatâ, lævi, nitidâ, longitudinaliter plicatâ; aperturâ parvâ, columellâ brevi-laminatâ, labro varicoso.*

THE SUBTERETE NASSA. Shell subturreted, yellowish or ash-olive, encircled with a red band or line, smooth, shining, longitudinally plaited; aperture small, columella short-laminated, lip varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Eastern Seas.

A small, shining, subtransparent shell, of an ash-olive colour, encircled with a red line or band.

Species 105. (Mus. Cuming.)

NASSA DEALBATA. *Nass. testâ subacuminato-conicâ, opaco-albâ, fasciâ pallidè luteâ cinctâ, liris transversis et longitudinalibus confertim noduloso-reticulatâ, sulco infra suturas; columellâ brevilaminatâ; aperturâ parvâ, fauce liratâ, labro varicoso.*

THE WHITENED NASSA. Shell somewhat acuminately conical, opake-white, encircled with a faint yellowish band, closely nodulously reticulated with longitudinal and transverse ridges, with a groove beneath the sutures; columella short-laminated; aperture small, interior ridged, lip varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Dumaguete, Isle of Negros, Philippines (in black coarse sand at eleven fathoms); Cuming.

Sculptured throughout with a strong closely reticulated pattern.

Species 106. (Mus. Cuming.)

NASSA COMPTA. *Nass. testâ ovato-conicâ, subacuminatâ, fulvo-rufescente, prope suturas pallidè variegatâ; anfractibus convexis, lævibus, prope apicem costellatis; columellâ callosâ, labro subcalloso, fauce liratâ.*

THE NEAT NASSA. Shell ovately conic, somewhat acuminated, fulvous-red, palely variegated near the sutures; whorls convex, smooth, finely ribbed near the apex; columella callous, lip rather callous, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Cape St. Antonio, Africa.

A smooth, fulvous-brown shell, faintly blotched with lighter colour at the sutures.

Species 107. (Mus. Cuming.)

NASSA CEROTINA. *Nass. testâ acuminato-turritâ, lutescente-roseâ, longitudinaliter plicato-costatâ, interstitiis obsoletè clathratis, anfractu ultimo basi bilirato; aperturâ parvâ, columellâ subcallosâ, labro varicoso.*

THE WAXEN NASSA. Shell acuminately turreted, yellowish-rose, longitudinally plicately ribbed, interstices obsoletely latticed, last whorl two-ridged at the base; aperture small, columella subcallous, lip varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Australia.

A narrow, acuminated shell, obliquely longitudinally ribbed throughout with a delicate, yellowish-pink, waxen aspect.

Species 108. (Mus. Cuming.)

NASSA PALLIDULA. *Nass. testâ ovatâ, ventricosâ, pallidâ, maculis fuscescentibus obscurè bifasciatâ; spirâ subacuminatâ, suturis angustè canaliculatis; anfractibus plano-convexis, lævibus, basi sulcatis; columellâ arcu-*

atâ, supernè callositate parvâ instructâ, fauce liratâ, labro subexpanso, crassè varicoso.

THE PALE NASSA. Shell ovate, ventricose, pale, obscurely tinged with two bands of light brown spots; spire rather acuminated; sutures narrowly channelled; whorls flatly convex, smooth, grooved at the base; columella arched, furnished at the upper part with a small callosity, interior ridged, lip rather expanded, thickly varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Malacca (in coarse sand at ten fathoms); Cuming.

A smooth, pale, subventricose species, with the spire delicately channelled.

Species 109. (Mus. Cuming.)

NASSA LUCTUOSA. *Nass. testâ acuminato-ovatâ, purpureo-nigrâ, transversim tenuisulcatâ, prope apicem longitudinaliter plicatâ; anfractibus planulatis, ad suturas irregulariter noduloso-marginatis; aperturâ parvâ, fauce liratâ, columellâ labroque crassè callosis.*

THE MOURNING NASSA. Shell acuminately ovate, purple-black, transversely finely ridged, longitudinally plaited near the apex; whorls flattened, irregularly nodulously margined at the sutures; aperture small, intérior ridged, lip and columella thickly callous.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Cagayan, Isle of Mindanao, Philippines (under stones on the reefs); Cuming.

A very dark purple-black solid species, finely transversely grooved throughout, and irregularly nodulously margined at the sutures.

110.

111a.

111b.

112.

113a.

113b.

114.

115a.

115b.

116.

Sowerby, del. et lith.

F. Reeve, imp.

(Enlarged one fourth.)

NASSA.

PLATE XVII.

Species 110. (Mus. Cuming.)

NASSA VERSICOLOR. *Nass. testâ ovato-conicâ, lutescente, ad basin fasciâ rufo-fuscâ cingulatâ; suturâ nigricante-fuscâ; anfractibus rotundatis, transversim striatis, longitudinaliter fortiter costatis; aperturâ parvâ, columellâ subcallosâ, labro varicoso.*

THE VARICOLOURED NASSA. Shell ovately conic, yellowish, encircled with a broad red-brown band at the base; suture blackish-brown; whorls rounded, transversely striated, longitudinally strongly ribbed; aperture small, columella rather callous, lip varicose.

C. B. ADAMS, Cat. Shells of Panama, p. 66.

Hab. Panama.

Sculptured throughout with strong ribs over rounded whorls.

Species 111. (Mus. Cuming.)

NASSA COMPLANATA. *Nass. testâ ovatâ, olivaceâ vel cinereâ, luteo-fasciatâ, longitudinaliter obliquè granoso-plicatâ; anfractu ultimo plus minus complanato; aperturâ parvâ, fauce liratâ, columellâ simplici, labro varicoso.*

THE SMOOTH NASSA. Shell ovate, olive or ash, banded with yellow, longitudinally obliquely granosely plaited; last whorl more or less smooth; aperture small, interior ridged, columella simple, lip varicose.

POWIS, Pro. Zool. Soc. 1835, p. 96.

Hab. Atacamas, West Columbia (under stones); Cuming.

Obliquely grain-plaited from the apex downwards, the plaits partially disappearing on the last whorl.

Fig. 112. (Mus. Cuming.)

This shell, which is the type of *N. rufocincta*, A. Adams, is a variety of *N. versicolor*, C. B. Adams, figured above it.

Species 113. (Mus. Cuming.)

NASSA SINUSIGERA. *Nass. testâ ovato-conicâ, solidiusculâ, obliquâ, albidâ, rufo-fusco tinctâ et vittatâ, longitudinaliter costatâ, costis subflexuosis, ad suturas granulatis; columellâ callosâ et rugosâ, aperturâ parvâ, fauce liratâ, supernè sinuatâ, labro varicoso, infernè sinuato.*

THE SINUATED NASSA. Shell ovately conical, rather solid, oblique, whitish, stained and filleted with red-brown, longitudinally ribbed, ribs slightly flexuous, granulated at the sutures; columella callous and wrinkled, aperture small, interior ridged, sinuated at the upper part, lip varicose, sinuated at the lower part.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Samar, Philippines (in coarse sand at eight fathoms); Cuming.

A very characteristic species, peculiar both in form and sculpture.

Species 114. (Mus. Cuming.)

NASSA INCRASSATA. *Nass. testâ conico-turritâ, fulvescente-luteâ, castaneo plus minus fasciatâ; anfractibus rotundatis, longitudinaliter costatis, transversim noduloso-liratis; aperturâ parviusculâ, columellâ arcuatâ, callosâ, labro peculiariter prominentè varicoso.*

THE THICKENED NASSA. Shell conically turreted, fulvous yellow, more or less banded with chestnut; whorls rounded, longitudinally ribbed, transversely nodulously ridged; aperture rather small, columella arched, callous, lip peculiarly prominently varicose.

Tritonium incrassatum, Müller, Zoologia Danica, Prodrome, No. 2946.
Murex incrassatus, Gmelin.
Nassa incrassata, Deshayes.
Buccinum minutum, Pennant.
Buccinum macula, Montagu.
Buccinum Ascanias, Bruguière.
Buccinum asperulum, Philippi.
Buccinum Lacepedii, Payraudeau.

Hab. Seas of Europe.

This well-known European species is peculiarly distinguished by the prominent development of the varix bordering the lip.

Fig. 115. (Mus. Cuming.)

A characteristic dwarf variety of *N. Antillarum* described at Plate XII.

Species 116. (Mus. Cuming.)

NASSA SEMIGRANOSA. *Nass. testâ ovato-conicâ, albâ, luteo interdum variegatâ, nitidâ; anfractibus transversim tenuissimè striatis, prope suturas longitudinaliter plicatis, plicis supernè bi-tri-tuberculatis; aperturâ ovatâ, columellâ subcallosâ, lævigatâ, labro varicoso.*

THE HALF-GRAINED NASSA. Shell ovate conical, white, sometimes variegated with yellow, shining; whorls transversely very finely striated, longitudinally plaited near the sutures, plaits two-three-tubercled at the upper part; aperture ovate, columella rather callous, smooth, lip varicose.

Buccinum semigranosum, Dunker, Zeitschrift für Malac. 1846, p. 170.

Hab. ——?

A shining ivory-like shell, in which the longitudinal plaits are broken up next the sutures into granules.

117

118.a

118.b

119.

120.a

120.b

121.

122.a

122.b

123.

NASSA.

PLATE XVIII.

Species 117. (Mus. Cuming.)

NASSA FESTIVA. *Nass. testâ ovatâ, crassâ, albâ aut cærulescente, nigro-fusco tinctâ et lineatâ, longitudinaliter subrudè nodoso-costatâ, transversim sulcatâ; aperturâ ovatâ, fauce valdè liratâ, columellâ brevilaminatâ, labro crassè varicoso.*

THE PLEASANT NASSA. Shell ovate, thick, white or bluish, stained and lineated with black-brown, longitudinally rather rudely nodosely ribbed, transversely grooved; aperture ovate, interior strongly ridged, columella short-laminated, lip thickly varicose.

POWIS, Pro. Zool. Soc. 1835, p. 95.

Hab. Panama and St. Elena (in sandy mud in six to ten fathoms); Cuming.

A fine solid species conspicuously noduled throughout, the nodules being white upon the dark ground of the interstices.

Species 118. (Mus. Cuming.)

NASSA VARICIFERA. *Nass. testâ subelongato-turritâ, albidâ, fasciis duabus ferrugineo-fuscis cingulatâ; spirâ exsertâ, suturâ subcanaliculatâ; anfractibus planiusculis, transversim densè impresso-striatis, longitudinaliter crebriplicatis, varice crasso calloso hic illic instructis; aperturâ parvâ, fauce denticulatâ, columellâ arcuatâ, basi contortâ, labro varicoso.*

THE VARICOSE NASSA. Shell somewhat elongately turreted, whitish, encircled with two rust-brown bands; spire exserted, suture slightly channelled; whorls rather flat, transversely densely impressly striated, longitudinally closely plaited, furnished here and there with a thick varix; aperture small, interior denticulated, columella arched, twisted at the base, lip varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Eastern Seas.

This singular *Scalaria*-like species partakes very much of the character of *Triton*.

Species 119. (Mus. Cuming.)

NASSA MYRISTICA. *Nass. testâ globoso-acuminatâ, crassâ, solidâ, sordidè albâ, fusco lineatâ; spirâ elevatâ; anfractibus rotundatis, obliquè longitudinaliter costatis, costis fortibus, rotundatis, liris transversis filiformibus nitidè decussatis; aperturâ parviusculâ, valdè liratâ, columellâ labroque crassè callosis.*

THE NUTMEG NASSA. Shell globosely acuminated, thick, solid, dirty white, lineated with brown; spire raised; whorls rounded, obliquely longitudinally ribbed, ribs strong, rounded, neatly crossed with transverse filiform ridges; aperture rather small, strongly ridged, lip and columella thickly callous.

HINDS, Moll. Voy. Sulphur, pl. 9. f. 10 and 11.

Hab. Cape of Good Hope; Hinds.

A very characteristic solid subglobose species, strongly obliquely ribbed, the ribs being crossed at regular intervals with painted thread-like ridges.

Species 120. (Mus. Cuming.)

NASSA TRITONIFORMIS. *Nass. testâ acuminato-conicâ, basi contortâ, livido-cinereâ, fusco hic illic tinctâ; longitudinaliter plicato-costellatâ, liris transversis nodoso-reticulatâ, nodis albidis; aperturâ parvâ, fauce valdè liratâ, columellâ arcuatâ, tenuilaminatâ, corrugatâ, labro enormiter varicoso.*

THE TRITON-SHAPED NASSA. Shell acuminately conic, twisted at the base, livid-ash, stained here and there with brown; longitudinally plicately ribbed, nodosely reticulated with transverse ridges, nodules white; aperture small, interior strongly ridged, columella arched, thinly laminated and wrinkled, lip enormously varicose.

KIENER, Icon. coq. vivantes, p. 108. pl. 30. f. 2.

Hab. Island of Luzon, Philippines (on mud-banks); Cuming.

Belonging to the same peculiar type of the genus as the European *N. incrassata.*

Species 121. (Mus. Cuming.)

NASSA DECUSSATA. *Nass. testâ ovato-conicâ, basi contortâ, albidâ, fusco tinctâ et obscurè fasciatâ; anfractibus medio angulatis, transversim filoso-liratis, longitudinaliter plicato-costatis, costis ad angulum compresso-nodatis; aperturâ rotundatâ, fauce liratâ, columellâ calloso-laminatâ, labro varicoso.*

THE DECUSSATED NASSA. Shell ovately conical, twisted at the base, whitish, stained and obscurely banded with brown; whorls angled in the middle, transversely thread-ridged, longitudinally plait-ribbed, ribs compressly noduled at the angle; aperture rounded, interior ridged, columella callously laminated, lip varicose.

KIENER, Icon. coq. vivantes, p. 109. pl. 30. f. 3.

Hab. Brisbane Water, East Australia; Strange.

More angular and less varicose than the preceding species.

Species 122. (Mus. Cuming.)

NASSA NIVEA. *Nass. testâ pyramidali-conicâ, candidâ; spirâ acutâ, suturâ impressâ; anfractibus planulatis, longitudinaliter subdistanter plicatis, transversim sulcatis; aperturâ parvâ, fauce liratâ, columellâ laminâ callosâ, labro simplici.*

THE SNOWY NASSA. Shell pyramidally conical, white; spire sharp, suture impressed; whorls flattened, longitudinally rather distantly plaited, transversely grooved; aperture small, interior ridged, columella with a callous lamina, lip simple.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Batangas, Island of Luzon, Philippines (in coarse sand at twenty-one fathoms); Cuming.

A solid colourless pyramidally conical species, sculptured with gentle ripple-like plaits, crossed with numerous linear grooves.

Species 123. (Mus. Cuming.)

NASSA POLYGONATA. *Nass. testâ globoso-conicâ, crassâ, albidâ, fusco-rubente tinctâ et lineatâ; spirâ acutâ; anfractibus rotundatis, longitudinaliter plicato-costatis, transversim filoso-liratis; aperturâ parvâ, fortiter liratâ, columellâ laminatâ et plicatâ, labro valdè incrassato, varicoso.*

THE MANY-ANGLED NASSA. Shell globosely conical, thick, whitish, stained and lineated with brown-red; spire sharp; whorls rounded, longitudinally plicately ribbed, transversely thread-ridged; aperture small, strongly ridged, columella laminated and plaited, lip very thickened, varicose.

LAMARCK, Anim. sans vert. (Deshayes' edit.) vol. 10. p. 184.

Hab. Isle of Camiguing, Philippines (in sandy mud at thirty fathoms); Cuming.

A solid globose species, approaching in general aspect a well-known form of *Cancellaria*.

124.

125.a

125.b

126.

127.a

127.b

128.

129.a

129.b

130.

NASSA.

PLATE XIX.

Species 124. (Mus. Cuming.)

NASSA BADIA. *Nass. testâ ovato-acuminatâ, lævi, nitidâ, castaneâ; anfractibus planis, supremis longitudinaliter plicatis, anfractu ultimo transversim obsoletè striato; columellâ simplici, vix callosâ, labro varicoso, intus denticulato.*

THE BROWN NASSA. Shell ovately acuminated, smooth, shining, chestnut; whorls flat, the uppermost longitudinally plaited, last whorl transversely obsoletely striated; columella simple, slightly callous, lip varicose, denticulated within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Luzon, Philippines (on the reefs); Cuming.

A solid brown acuminated shell, with no sculpture except near the apex.

Species 125. (Mus. Cuming.)

NASSA CLATHRATULA. *Nass. testâ ovatâ, niveâ; spirâ acutâ; anfractibus convexis, longitudinaliter costatâ, costis muricato-nodulosis, interstitiis valdè clathratis; columellâ brevilaminatâ; aperturâ parvâ, fauce fortiter liratâ, labro incrassato.*

THE LATTICED NASSA. Shell ovate, snow-white; spire acute; whorls convex, longitudinally ribbed, ribs prickly nodulous, interstices strongly latticed; columella short-laminated; aperture small, interior strongly ridged, lip thickened.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Siquijor, Philippines (in sandy mud, deep water); Cuming.

Peculiarly characterized by the very strong latticed sculpture in the interstices between the ribs.

Species 126. (Mus. Cuming.)

NASSA CINNAMOMEA. *Nass. testâ ovato-acuminatâ, cinnamomeâ, lævi, nitidâ, tenui, subpellucidâ; anfractibus convexis, ad suturas tenuimarginatis; columellâ simplici, labro varicoso, intus obsoletè denticulato.*

THE CINNAMON NASSA. Shell ovately acuminated, cinnamon, smooth, shining, thin, somewhat transparent; whorls convex, finely margined at the sutures; columella simple, lip varicose, obsoletely denticulated within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Isle of Negros, Philippines (under stones at low water); Cuming.

A light subtransparent cinnamon-brown shell, smooth throughout.

Species 127. (Mus. Cuming.)

NASSA FUSCATA. *Nass. testâ ovatâ, fuscâ; spirâ acuminatâ; anfractibus convexiusculis, longitudinaliter plicatis, transversim liratis, plicis ad liras tuberculatis, interstitiis lineatis; columellâ rugosâ, labro incrassato, intus dentato.*

THE BROWN NASSA. Shell ovate, brown; spire acuminated; whorls rather convex, longitudinally plaited, transversely ridged, plaits tuberculated on the ridges, interstices lineated; columella wrinkled, lip thickened, toothed within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. ——?

Approximating more to the ordinary type of *Buccinum* than of *Nassa*.

Species 128. (Mus. Cuming.)

NASSA MITRALIS. *Nass. testâ fusiformi-conicâ, fuscâ, lævigatâ, prope apicem et pone labrum plicatâ, basi sulcatâ; suturâ tenuimarginatâ; columellâ simplici, labro intus incrassato.*

THE MITRE-LIKE NASSA. Shell fusiform, conical, brown, smooth, plaited near the apex and behind the lip, grooved at the base; suture thinly margined; columella simple, lip thickened within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Isle of Negros, Philippines (on mud-banks); Cuming.

Plaited near the apex, then smooth, then plaited again behind the lip.

Species 129. (Mus. Cuming.)

NASSA VARIABILIS. *Nass. testâ acuminato-ovatâ, lutescente-albâ, nitente, fasciâ rufescente cingulatâ, longitudinaliter flexuoso-plicatâ, transversim impresso-striatâ; columellâ calloso-laminatâ, subexcavatâ, labro simplici, fauce liratâ.*

THE VARIABLE NASSA. Shell acuminately ovate, yellowish-white, shining, encircled with a reddish band, longitudinally flexuously plaited, transversely impressly striated; columella callously laminated, rather excavated, lip simple, interior ridged.

PHILIPPI, Mus. Cuming.

Hab. ——?

A pale solid species, flexuously plaited and encircled with a characteristic red band.

Species 130. (Mus. Cuming.)

NASSA DENTIFERA. *Nass. testâ ovatâ, subventricosâ, olivaceo-fuscâ, zonulâ albâ cingulatâ, longitudinaliter nodoso-plicatâ, interstitiis lævibus; columellâ brevilaminatâ, labro simplici, varicoso.*

THE TOOTHED NASSA. Shell ovate, subventricose, olive-brown, encircled with a whitish zone, longitudinally nodosely plaited, interstices smooth; columella short-laminated, lip simple, varicose.

POWIS, Pro. Zool. Soc. 1835, p. 95.

Hab. Bay of Arica, South America (in mud at ten fathoms); Powis.

The longitudinal plaits are very concentrically inclined in this species, and are characteristically noduled throughout.

131.

132.a

132.b

133.

134.a

134.b

135

136.a

136.b

137.

Sowerby, del et lith.

F. Reeve, imp

(Enlarged one-fourth.)

NASSA.

PLATE XX.

Species 131. (Mus. Cuming.)

NASSA ECHINATA. *Nass. testâ ovatâ, albidâ; anfractibus planiusculis, supernè declivi-angulatis, longitudinaliter tenuiplicatis, plicis lateraliter appressis et echinato-nodosis; aperturâ parvâ, columellâ callositate parvâ, labro incrassato, varicoso.*

THE PRICKLY NASSA. Shell ovate, whitish; whorls rather flat, slantingly angled round the upper part, longitudinally thinly plaited, plaits laterally appressed and prickly nodose; aperture small, with a small callosity, lip thickened, varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Isle of Mindoro, Philippines (in sandy mud at three fathoms); Cuming.

The thin longitudinal plaits are peculiarly appressed on one side, and fall in prickly festoons.

Species 132. (Mus. Cuming.)

NASSA GEMMULIFERA. *Nass. testâ ovato-conicâ, albidâ aut cinerascente, fusco tinctâ et fasciatâ; spirâ acutâ; anfractibus longitudinaliter plicatis, plicis nodoso-granulatis, sulcis transversis decussatis; columellâ callo expanso albo, labro simplici, fauce liratâ.*

THE GEMMED NASSA. Shell ovately conical, whitish or ash-coloured, stained and banded with brown; spire sharp; whorls longitudinally plaited, plaits nodulously granulated, decussated by transverse grooves; columella with a white expanded callosity, lip simple, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Burias, Philippines (in coarse sand at six fathoms); Cuming.

The surface of this species is closely largely granulated throughout.

Species 133. (Mus. Cuming.)

NASSA CÆLATA. *Nass. testâ ovatâ, acuminatâ, albidâ, rufescente fasciatâ; spirâ acutâ, suturâ subcanaliculatâ; anfractibus planiconvexis, longitudinaliter densè costellatis, interstitiis liris transversis concinnè cancellatis, costellis ad suturas elongato-granulatis; columellâ brevilaminatâ, labro varicoso, fauce liratâ.*

THE CARVED NASSA. Shell ovate, acuminated, whitish, banded with pale red; spire sharp, suture slightly channelled; whorls flatly convex, longitudinally densely fine-ribbed, interstices neatly cancellated with transverse ridges, riblets elongately granuled at the sutures; columella short-laminated, lip varicose, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Mindanao, Philippines (in sandy mud at twenty-five fathoms); Cuming.

A solid closely cancellated species, in which the longitudinal riblets have the form of elongated granules next the sutures.

Fig. 134. (Mus. Cuming.)

A variety of *N. variabilis* of the preceding Plate, of more transparent texture, less strongly plaited, with only the faintest indication of a central band.

Species 135. (Mus. Cuming.)

NASSA OBTUSATA. *Nass. testâ subgloboso-conicâ, albâ, rufo vittatim maculatâ, longitudinaliter costatâ, costis distantibus, supernè obtusè tuberculatis, interstitiis liris transversis crebri-cancellatis; aperturâ parviusculâ, fauce liratâ, columellâ callosâ, labro incrassato, varicoso.*

THE BLUNTED NASSA. Shell somewhat globosely conical, white, filleted with spots of red, longitudinally ribbed, ribs distant, tubercled at the upper part, interstices closely cancellated with transverse ridges; aperture rather small, interior ridged, columella callous, lip thickened, varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Ticao, Philippines (in coral sand at seven fathoms); Cuming.

Chiefly distinguished by the obtuse widely separated character of the ribs, and the fine-ridged sculpture of the interstices.

Species 136. (Mus. Cuming.)

NASSA MULTICOSTATA. *Nass. testâ ovatâ, acuminatâ, albâ, interdum rufescente variegatâ, longitudinaliter tenuicostatâ, costis numerosis, confertis; columellâ callosâ, labro simplici, intus obsoletè denticulato.*

THE MANY-RIBBED NASSA. Shell ovate, acuminated, white, sometimes variegated with pale red, longitudinally finely ribbed, ribs numerous, close-set; columella callous, lip simple, obsoletely denticulated within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Luzon, Philippines (in coarse sand at four fathoms); Cuming.

A very delicate close-ribbed species, the ribs being finer and more numerous as they approach the lip.

Fig. 137. (Mus. Cuming.)

A well-marked variety of *N. Gayi* described at Plate XIII. Sp. 87.

138.

139.a

139.b

140.

141.a

141.b

142.

143.a

143.b

144.

Sowerby, del et lith.

F. Reeve, imp.

NASSA.

PLATE XXI.

Species 138. (Mus. Cuming.)

NASSA FISSILABRIS. *Nass. testâ ovato-conicâ, obliquâ, cinerascente, pallidè fasciatâ, longitudinaliter costatâ; anfractu ultimo anticè transversim sulcato; columellâ callo expanso, anticè tuberculis duobus transversis, labro incrassato, supernè inciso.*

THE SLIT-LIP NASSA. Shell ovately conical, oblique, ash, faintly banded, longitudinally ribbed; last whorl transversely grooved in front; columella with an expanded callosity, with two transverse tubercles in front, lip thickened, slit at the upper part.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Mindanao, Philippines (in sandy mud at twenty-five fathoms); Cuming.

A rather solid species, with a characteristic *Pleurotoma*-like slit in the lip.

Species 139. (Mus. Cuming.)

NASSA GLAUCA. *Nass. testâ ovato-conicâ, ventricosâ, glaucâ, fasciâ albâ supra suturam; spirâ acutâ, suturâ impressâ; anfractibus longitudinaliter costatis, costis distantibus, transversim tenuistriatis; columellâ basi contortâ et peculiariter sulcatâ, aperturâ parvâ, labro fortiter varicoso.*

THE GLAUCOUS NASSA. Shell ovately conical, ventricose, glaucous, with a whitish band above the suture; spire sharp, suture impressed; whorls longitudinally ribbed, ribs distant, transversely finely striated; columella twisted and peculiarly grooved at the base, aperture small, lip strongly varicose.

C. B. ADAMS, Shells of Panama, p. 61.

Hab. Taboga, Panama.

A strongly marked species, chiefly distinguished for its sutural and basal grooves.

Species 140. (Mus. Cuming.)

NASSA MICANS. *Nass. testâ ovato-fusiformi, fumeo-albâ, nitidissimâ; anfractibus convexiusculis, prope apicem costellatis; columellâ callo tenuissimo, labro basi crenulato, fauce liratâ.*

THE GLITTERING NASSA. Shell ovately fusiform, smoky white, very shining; whorls rather convex, ribbed near the apex; columella with a very thin callosity, lip crenulated at the base, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Mindanao, Philippines (in sandy mud at twenty-five fathoms); Cuming.

A fusiform species, with a shining semifossil aspect.

Species 141. (Mus. Cuming.)

NASSA DORSUOSA. *Nass. testâ ovatâ, depressâ, dorso conspicuè gibboso-tuberculatâ, olivaceâ, lævi, prope apicem longitudinaliter subplicatâ; aperturâ parvâ, columellâ callo peramplo usque ad apicem repando labro crassè juncto.*

THE HUMPED-BACK NASSA. Shell ovate, depressed, conspicuously gibbously tuberculated at the back, olive, smooth, longitudinally subplicated at the apex; aperture small, columella with a very large callosity spread to the apex and joining thickly with the lip.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Masbate, Philippines (on mud-banks at low water); Cuming.

Remarkably distinguished for its tuberculated hump and thickly spread callosity.

Species 142. (Mus. Cuming.)

NASSA COSTATA. *Nass. testâ ovato-conicâ; spirâ acutâ, productâ, pallidâ, anfractu ultimo maculâ rufo-fuscâ tincto; anfractibus convexiusculis, longitudinaliter costatis, costis supernè plano-nodatis; columellâ brevilaminatâ, labro simplici, basi crenulato, fauce liratâ.*

THE RIBBED NASSA. Shell ovately conical; spire sharp, produced, pale, last whorl stained with a red-brown spot; whorls rather convex, longitudinally ribbed, ribs flatly noduled at the upper part; columella short-laminated, lip simple, crenulated at the base, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Burias, Philippines (in sandy mud at six fathoms); Cuming.

The ribs are close-set and rather flexuous, the spire sharp and erect.

Species 143. (Mus. Cuming.)

NASSA STIMPSONIANA. *Nass. testâ acuminato-conicâ,*

atro-cinereâ, lineis albidis interruptis cingulatâ, longitudinaliter crassè plicato-costatâ, transversim liratâ et subtilissimè striatâ; aperturâ parvâ, columellâ brevilaminatâ, labro crassè varicoso, intus denticulato.

STIMPSON'S NASSA. Shell acuminately conical, black-ash, encircled with interrupted white lines, longitudinally thickly plicately ribbed, transversely ridged and very finely striated; aperture small, columella short-laminated, lip thickly varicose, denticulated within.

Buccinum Stimpsonianum, C. B. Adams, Panama Shells, p. 72.

Hab. Panama (under stones near low-water mark); C. B. Adams.

Encircled with fine ridges, which on crossing the ribs are whitish and look like interrupted lines.

Species 144. (Mus. Cuming.)

NASSA ALBIPUNCTATA. *Nass. testâ ovato-turritâ, pallidâ, fasciis rufescentibus albipunctatis subobscurè cinctâ, longitudinaliter costatâ; anfractibus rotundatis, liris tenuibus acutis supernè et infernè cingulatis; aperturâ parvâ, fauce denticulatâ, columellâ brevilaminatâ, labro crassè varicoso.*

THE WHITE-DOTTED NASSA. Shell ovately turreted, pale, rather obscurely encircled with faint reddish-white dotted bands, longitudinally ribbed; whorls rounded, encircled round the upper and lower parts with fine sharp ridges; aperture small, inferior denticulated, columella short-laminated, lip thickly varicose.

Hab. ——?

A solid conspicuously ribbed shell, distinguished by its faint white-dotted bands.

145.a

146.a

146.b

147.

148.a

148.b

149.

150.a

150.b

145.b

Sowerby, del et lith

F. Reeve, imp.

NASSA.

PLATE XXII.

Species 145. (Mus. Cuming.)

NASSA ALGIDA. *Nass. testâ ovato-conicâ, lævigatâ, nitidâ, olivaceâ, fusco et albo strigatâ et maculatâ; spirâ acutâ, suturâ subimpressâ; anfractibus prope apicem plicatis, ad suturas obsoletè rudè plicato-nodosis; columellâ subexcavatâ, callosâ, labro subincrassato, anticè minutè denticulato.*

THE CHILLED NASSA. Shell ovately conical, smooth, shining, olive, streaked and blotched with brown and white; spire sharp, suture rather impressed; whorls plaited near the apex, obsoletely rudely plicately noduled at the sutures; columella rather excavated, callous, lip rather thickened, minutely denticulated in front.

Hab. Moreton Bay, Australia; Strange.

Of a peculiar livid-olive colour, milk-blotched here and there, and painted longitudinally with waved brown streaks.

Species 146. (Mus. Cuming.)

NASSA CINISCULUS. *Nass. testâ ovatâ, subventricosâ, fusco-nigrâ, albo indistinctè zonatâ, longitudinaliter plicato-costatâ, costis liris transversis decussatis; aperturâ parvâ, fauce liratâ, columellâ calloso-laminatâ, labro varicoso.*

THE LITTLE CINDER NASSA. Shell ovate, somewhat ventricose, brown-black, indistinctly zoned with white, longitudinally plicately ribbed, ribs crossed with transverse ridges; aperture small, interior ridged, columella callous-laminated, lip varicose.

Hab. Island of St. Thomas, West Indies.

A subventricose roughly sculptured cinder-black shell, indistinctly zoned round the middle with white.

Species 147. (Mus. Cuming.)

NASSA RUTILANS. *Nass. testâ acuminato-ovatâ, lævigatâ, nitente, cinereo-olivaceo et griseo longitudinaliter variegatâ; spirâ exsertâ, ad apicem tenuiplicatâ; columellâ arcuatâ, parum callosâ, labro crassè varicoso, lævi.*

THE SHINING NASSA. Shell acuminately ovate, smooth, shining, variegated longitudinally with ash-olive and grey; spire exserted, thinly plaited at the apex; columella arched, but little callous, lip thickly varicose, smooth.

Hab. New Zealand.

A hard, smooth, acuminated shell, variegated longitudinally with a promiscuous blending of ash-olive and grey.

Species 148. (Mus. Cuming.)

NASSA STURMII. *Nass. testâ ovato-conicâ, subventricosâ, albidâ, fasciâ cærulescente, vittâ nigro-fuscâ cingulatâ, longitudinaliter nodoso-plicatâ, nodis obtusis; aperturâ parvâ, columellâ arcuatâ, basi contortâ, parum callosâ, labro simplici.*

STURM'S NASSA. Shell ovately conical, subventricose, whitish, encircled with a pale blue band and black-brown fillet, longitudinally nodosely plaited, nodules obtuse; aperture small, columella arched, twisted at the base, but little callous, lip simple.

PHILIPPI, Zeitschrift für Malac. 1848, p. 135.

Hab. West Indies; Philippi.

Of a peculiar pale bluish colour, with a central fillet of black-brown.

Species 149. (Mus. Cuming.)

NASSA BRONNI. *Nass. testâ ovatâ, ventricosâ, crassâ, albidâ, lævi; spirâ brevi, acutâ, suturâ impressâ; anfractibus convexiusculis, supernè tumidis et obsoletè nodosis; columellâ excavatâ, callo crasso latè repando, labro latè varicoso, anticè denticulato.*

BRONN'S NASSA. Shell ovate, ventricose, thick, whitish, smooth; spire short, acute, suture impressed; whorls rather convex, swollen and obsoletely nodose round the upper part; columella excavated, with a thick widely spread callosity, lip broadly varicose, denticulated in front.

PHILIPPI, Zeitschrift für Malac. 1848, p. 137.

Hab. Java.

It is doubtful whether this is anything more than a variety of *N. coronata*.

Species 150. (Mus. Cuming.)

NASSA MELANIOIDES. *Nass. testâ cylindraceo-ovatâ, tenuiculâ, intensè olivaceâ, intus purpureo-nigrâ, nitente; spirâ subobtusâ; anfractibus lævibus, supernè filo-marginatis, prope apicem striatis, ultimo basi sulcato; columellâ subexcavatâ, vix callosâ, basi appresso-contortâ, labro simplici.*

THE MELANIA-LIKE NASSA. Shell cylindrically ovate, rather thin, dark-olive, interior shining purple-black; spire subobtuse; whorls smooth, thread-margined round the upper part, striated near the apex, last whorl grooved at the base; columella rather excavated, but little callous, appressly twisted at the base, lip simple.

Hab. Moreton Bay, Australia; Strange.

This species, like *N. obtusata*, has a characteristic fresh-water aspect like that of a *Melania*.

151.

152.a

152.b

153.a

154.a

154.b

153.b

155.a

155.b

156.

NASSA.

PLATE XXIII.

Species 151. (Mus. Cuming.)

NASSA PELLUCIDA. *Nass. testâ semiorbiculari, plano-depressâ, pellucido-albâ, rufo sparsim punctatâ; spirâ retusissimâ; aperturâ ovatâ, columellâ basi contortâ, labro simplici.*

THE PELLUCID NASSA. Shell semiorbicular, flatly depressed, transparent white, sparingly dotted with red; spire very blunt; aperture ovate, columella twisted at the base, lip simple.

Cyclope pellucida, Risso, Hist. nat. de l'Europe mérid. p. 271. no. 719.

Cyclope Donoviana, Risso.

Hab. Mediterranean.

This may be only a small subtransparent variety of *N. Neritea.*

Species 152. (Mus. Cuming.)

NASSA MANGELIOIDES. *Nass. testâ ovatâ, solidâ, dorso subgibbosâ, sordidè cinereâ; spirâ brevi, acutâ; anfractibus supernè tuberculatis, tuberculis hic illic in costas elongatis, interstitiis cancellatis; aperturâ minimâ, columellâ subexcavatâ, callo amplo incrassato latè repando labro juncto.*

THE MANGELIA-LIKE NASSA. Shell ovate, solid, rather gibbous at the back, dull ash; spire short, sharp; whorls tuberculated at the upper part, tubercles here and there prolonged into ribs, interstices cancellated; aperture very small, columella rather excavated, with a large thickened broadly spread callosity joined with the lip.

Hab. ——?

A very characteristic species, resembling certain species of *Mangelia*, save in the wide-spread callosity which surrounds the aperture.

Species 153. (Fig. 153 and 156, Mus. Cuming.)

NASSA NERITEA. *Nass. testâ semiorbiculari, supra convexâ, fulvescente, purpureo-fusco minutè reticulato-lentiginosâ; spirâ retusissimâ, infra concavo-depressâ, callosâ, luteâ; aperturâ minimâ, columellâ basi contortâ, labro incrassato.*

THE NERITOS NASSA. Shell semiorbicular, convex above, fulvous, minutely net-freckled with purple-brown; spire very blunt, concavely depressed beneath, callous, yellow; aperture very small; columella twisted at the base, lip thickened.

Buccinum Neriteum, Linnæus, Syst. Nat. (12th edit.) p. 1201.

Nassa Neritoides, Enc. Méth.

Nana Nerita, Schumacher.

Cyclope Neritea, Risso.

Hab. Mediterranean.

This well-known and very singular species is still without any allied forms.

Species 154. (Mus. Cuming.)

NASSA ORBICULATA. *Nass. testâ orbiculatâ, crassissimâ, dorso subgibbosâ, lævi, olivaceâ; spirâ brevi; aperturâ minimâ, columellâ excavatâ, callo luteo peramplo usque ad apicem crassè repando.*

THE ORBICULAR NASSA. Shell orbicular, very thick, rather gibbous at the back, smooth, olive; spire short; aperture very small, columella excavated, with a very large yellow callosity, thickly spread as far as the apex.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. ——?

A truly remarkable species, one-half of the shell being enveloped by the overflowing deposit of enamel forming the callosity.

Species 155. (Mus. Cuming.)

NASSA CANCELLATA. *Nass. testâ ovato-conicâ, fuscescente, tenui, subpellucidâ, fusco hic illic variegatâ; spirâ acutâ; anfractibus longitudinaliter costatâ, costis flexuosis, ad suturas subnodosis, interstitiis concinnè cancellatis; columellâ excavatâ, callo subincrassato repando, labro crassè calloso.*

THE CANCELLATED NASSA. Shell ovately conical, light brown, thin, semitransparent, here and there variegated with brown; spire sharp; whorls longitudinally ribbed, ribs flexuous, rather nodose at the sutures, interstices neatly cancellated; columella excavated, with a rather thick spread callosity, lip thickly callous.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Masbate, Philippines (under stones); Cuming.

Allied in form to *N. Mangelioides*, but thinner and more ventricose.

157.

158.a

158.b

159.

160.a

160.b

161.

162.a

162.

163.

Sowerby, del et lith.

F. Reeve, imp.

(Enlarged one fourth.)

NASSA.

PLATE XXIV.

Species 157. (Mus. Cuming.)

NASSA GLABRATA. *Nass. testâ acuminatâ, lævi, politâ, longitudinaliter obsoletè striatâ, albidâ, fasciis cinerascentibus maculisque fuscis ornatâ; columellâ callosâ, brevilaminatâ, labro subincrassato, margine tenui, flexuoso.*

THE SMOOTH NASSA. Shell acuminated, smooth, polished, longitudinally obsoletely striated, whitish, ornamented with ash-bands and brown-spots; columella callous, short-laminated, lip rather thickened, edge thin and flexuous.

Aciculina glabrata, A. Adams, Pro. Zool. Soc. March 1851.
Hab. Philippine Islands; Cuming.

A small smooth polished *Terebra*-like shell.

Species 158. (Mus. Cuming.)

NASSA WILSONI. *Nass. testâ ovato-conicâ, purpureo-nigricante, zonulâ lutescente cingulatâ, costis longitudinalibus lirisque tenuibus transversis creberrimè decussatâ; aperturâ parvâ, rotundatâ, fauce denticulatâ, columellâ simplici, labro varicoso.*

WILSON'S NASSA. Shell ovately conic, purple-black, encircled with a narrow yellowish zone, very closely decussated with longitudinal ribs and thin transverse ridges; aperture small, rounded, interior denticulated, columella simple, lip varicose.

C. B. ADAMS, Panama Shells, p. 67.
Hab. Panama.

A small ovate purple-black shell, closely sculptured, encircled with a narrow yellow band.

Species 159. (Mus. Cuming.)

NASSA LABIATA. *Nass. testâ angustè acuminatâ, nitidâ, cinerascente, pallidè fasciatâ, longitudinaliter costatâ, costis ad suturas nodulosis, transversim sulcatâ; aperturâ parvâ, columellâ fusco-laminatâ, labro varicoso, margine tenui, flexuoso, supernè sinuato.*

THE LIPPED NASSA. Shell narrowly acuminated, shining, light ash, faintly banded, longitudinally ribbed, ribs nodulous at the sutures, transversely grooved; aperture small, columella brown-laminated, lip varicose, edge thin, flexuous, sinuated at the upper part.

Aciculina labiata, A. Adams, Pro. Zool. Soc. March 1851.
Hab. Malacca (in coarse sand at ten fathoms); Cuming.

Of the same aciculated form as *N. glabrata*, ribbed throughout.

Species 160. (Mus. Cuming.)

NASSA VITTATA. *Nass. testâ acuminatâ, subturritâ, albidâ, nitidâ, vittis fuscis duabus distantibus cingulatâ, longitudinaliter costatâ, costis obtusis, infernè subevanidis; aperturâ parvâ, columellâ brevilaminatâ, labro varicoso.*

THE FILLETED NASSA. Shell acuminated, rather turreted, whitish, shining, encircled with two distant brown fillets, longitudinally ribbed, ribs obtuse, rather fading towards the lower part; aperture small, columella short-laminated, lip varicose.

Aciculina vittata, A. Adams, Pro. Zool. Soc. March 1851.
Hab. Island of Ticao, Philippines (in coral sand at six fathoms); Cuming.

In the filleted bands of this interesting species the spots appear only in the interstices between the ribs.

Species 161. (Mus. Cuming.)

NASSA TEREBROIDES. *Nass. testâ angustè acuminatâ, pallidè purpurascente-roseâ, obscurè fasciatâ, transversim lineari-sulcatâ, longitudinaliter costatâ; aperturâ parvâ, columellâ brevilaminatâ, labro varicoso, intus denticulato.*

THE TEREBRA-LIKE NASSA. Shell narrowly acuminated, pale purple-rose, obscurely banded, transversely linearly grooved, longitudinally ribbed; aperture small, columella short-laminated, lip varicose, denticulated within.

Aciculina costata, A. Adams, Pro. Zool. Soc. March 1851.
Hab. ——?

An aciculated ribbed species of a semitransparent pinky hue, bordering on *Terebra*.

Species 162. (Mus. Cuming.)

NASSA PUPINOIDES. *Nass. testâ cylindraceo-ovatâ, densè spiraliter striatâ, ad suturas minutè plicatâ, fuscescente,*

fasciâ pallidâ cingulatâ; aperturâ obliquè expansâ, columellâ excavatâ, brevilaminatâ, labro vix incrassato, intus denticulato.

THE PUPINA-LIKE NASSA. Shell cylindrically ovate, densely spirally striated, minutely plaited at the sutures, light brown, encircled with a pale band; aperture obliquely expanded, columella excavated, short-laminated, lip scarcely thickened, denticulated within.

Acicylina striata, A. Adams, Pro. Zool. Soc. March 1851.

Hab. Island of Zebu, Philippines (in sandy mud at five fathoms); Cuming.

Distinguished by a peculiar *Pupina*-like aspect, arising mainly from an oblique expansion of the aperture.

Species 163. (Mus. Cuming.)

NASSA DELICATA. *Nass. testâ acuminato-conicâ, semipellucido-aurantiâ, versus apicem pallidè rosaceâ, transversim sulcatâ, longitudinaliter flexuoso-costatâ; aperturâ parvâ, columellâ callosâ, labro crassè varicoso, varice albo.*

THE DELICATE NASSA. Shell acuminately conical, semi-transparent orange, tinged with rose towards the apex, transversely grooved, longitudinally flexuously ribbed; aperture small, columella callous, lip thickly varicose, varix white.

Hab. Casces Bay.

Sculptured with flexuous ribs, cut into nodules by transverse linear grooves.

164.

165.a

165.b

166.

167.a

167.b

168.

169.a

169.b

170.

Sowerby, del. et. lith.

F. Reeve, imp.

(Enlarged one fourth.)

NASSA.

PLATE XXV.

Species 164. (Mus. Cuming.)

NASSA NANA. *Nass. testâ ovatâ, lutescente, rufo trifasciatâ; spirâ breviusculâ, acutâ; anfractibus convexis, longitudinaliter plicatis, plicis supernè granatis, transversim striatis; columellâ callo subamplo, repando, labro crassè varicoso, fauce liratâ.*

THE DWARF NASSA. Shell ovate, yellowish, encircled with three reddish bands; spire rather short, sharp; whorls convex, longitudinally plaited, plaits grained at the upper part, transversely striated; columella with a rather large spread callosity, lip thickly varicose, interior ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Negros, Philippines (in coarse black sand at eleven fathoms); Cuming.

A solid red-banded shell, with a rather short spire and moderately spread callosity.

Species 165. (Mus. Cuming.)

NASSA CRENOLIRATA. *Nass. testâ ovatâ, pallidâ, lineis angustis transversis fuscis ornatâ, longitudinaliter costatâ, costis nodulosis, supernè nodosis; aperturâ angustatâ, fauce valdè liratâ, columellâ cum callo tenui, labro crassè varicoso.*

THE CRENATED-RIDGED NASSA. Shell ovate, pale, ornamented with narrow transverse brown lines, longitudinally ribbed, ribs nodulous, knotted at the upper part; aperture narrow, interior strongly ridged, columella with a thin callosity, lip thickly varicose.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. —— ?

A small solid stoutly ribbed species, with very much the general aspect of a *Cancellaria*.

Species 166. (Mus. Cuming.)

NASSA LABECULA. *Nass. testâ ovato-conicâ, obliquâ, pallidè fuscâ, anfractu ultimo nigricante tinctâ; spirâ breviusculâ, acutâ; anfractibus costatis, costis supernè tuberculatis, in anfractu ultimo subevanidis; columellâ callo subexpanso, labro supernè crassè calloso, fauce dentatâ.*

THE BLEMISHED NASSA. Shell ovately conical, oblique, light brown, last whorl stained with blackish; spire rather short, sharp; whorls ribbed, ribs tubercled at the upper part, somewhat fading in the last whorl; columella with a rather expanded callosity, lip thickly callous at the upper part, interior toothed.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Burias, Philippines (in coral sand at six fathoms); Cuming.

The lip of this species is peculiarly thickened at its junction with the body-whorl.

Species 167. (Mus. Cuming.)

NASSA TESSELLATA. *Nass. testâ ovato-conicâ, solidiusculâ, lutescente-albâ, castaneo tessellatim fasciatâ; spirâ acutâ; anfractibus rotundatis, longitudinaliter plicato-costatis, liris nodatis decussatis; aperturâ parvâ, fauce denticulatâ, columellâ excavatâ, rugoso-callosâ, labro varicoso.*

THE TESSELLATED NASSA. Shell ovately conical, rather solid, yellowish-white, tessellately banded with chestnut; spire sharp; whorls rounded, longitudinally plicately ribbed, crossed with noduled ridges; aperture small, interior denticulated, columella excavated, roughly callous, lip varicose.

Hab. —— ?

The transverse bands of this species appear tessellated, through being omitted, so to speak, in the interstices between the ribs.

Species 168. (Mus. Cuming.)

NASSA ANNELLIFERA. *Nass. testâ ovato-conicâ, subventricosâ, lutescente, lineis filosis fuscis fasciatim cingulatâ; longitudinaliter plicatâ, plicis supernè nodosis, deinde plus minus evanidis, transversim creberrimè tenuiliratis; aperturâ parviusculâ, rotundatâ, columellâ excavatâ, callosâ, labro crassè varicoso.*

THE RINGED NASSA. Shell ovately conic, subventricose, yellowish, encircled with bands of brown thread-like lines; longitudinally plicated, plaits noduled at the upper part, then more or less fading, transversely very closely finely ridged; aperture rather small, rounded, columella excavated, callous, lip thickly varicose.

Hab. —— ?

So closely and prominently ridged across, that the shell has the appearance of being encircled with a number of fine rings.

Species 169. (Mus. Cuming.)

NASSA COLLARIA. *Nass. testâ acuminato-ovatâ, albidâ, rufescente-fusco latè bifasciatâ, longitudinaliter costatâ, transversim nodoso-liratâ; aperturâ parvâ, fauce denticulatâ, columellâ tenuilaminatâ, labro conspicuè varicoso.*

THE COLLAR NASSA. Shell acuminately ovate, whitish, broadly two-banded with reddish-brown, longitudinally ribbed, transversely nodosely ridged; aperture small, interior denticulated, columella thinly laminated, lip conspicuously varicose.

GOULD, C. B. Adams, Panama Shells, p. 59.

Hab. Panama.

A rough-grained acuminated red-banded shell, with a very prominent varix on the lip.

Fig. 170. (Mus. Cuming.)

A variety of *N. tessellata* represented above, in which the painting is darker and more banded.

Nassa, Pl. XXVI.

171.

172.a

172.b

173.a

174.a

174.b

173.b

175.a

178.b

176.

NASSA.

PLATE XXVI.

Species 171. (Mus. Cuming.)

NASSA GENICULATA. *Nass. testâ parvâ, ovato-conicâ, fulvâ, albo variegatâ, fasciâ latâ cinereo-fuscâ cinctâ, transversim striatâ, longitudinaliter costatâ, costis geniculatis; columellâ subcallosâ, anticè bituberculatâ, labro extus incrassato, intus dentato-lirato.*

THE KNOTTED NASSA. Shell small, ovately conic, fulvous, variegated with white, encircled with a broad ash-brown band, transversely striated, longitudinally ribbed, ribs knotted; columella rather callous, bitubercled; lip thickened outwardly, dentately ridged inwardly.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Island of Ticao, Philippines (in sand at four fathoms); Cuming.

Rather widely ribbed, the ribs being strongly prickly knotted. The last whorl of the specimen here figured is distinguished by a dark livid-ash band.

Species 172. (Mus. Cuming.)

NASSA PUSIO. *Nass. testâ parvâ, ovato-conicâ, fulvâ, fusco variegatâ et maculosâ, costellis planis longitudinalibus confertis ornatâ; anfractu ultimo anticè sulcato; columellâ cum callo nitido subexpanso tectâ, labro intus sulcato, margine subreflexo.*

THE YOUNG NASSA. Shell small, ovately conic, fulvous, variegated and spotted with brown, ornamented with close-set rather flat longitudinal riblets; last whorl grooved in front; columella covered with a rather spread shining callosity; lip grooved within, a little reflected at the edge.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Sorsogon, Island of Luzon, Philippines (in coarse sand, at six fathoms); Cuming.

Very closely obtusely finely ribbed, the ribs having a rather callous aspect.

Species 173. (Mus. Cuming.)

NASSA NIGELLA. *Nass. testâ acuminato-ovatâ, transversim sulcatâ, longitudinaliter granoso-liratâ, intus extusque nigello-fuscâ; columellâ subexpansâ, nitidâ, labro simplici, extus marginato.*

THE SWARTHY NASSA. Shell acuminately ovate, transversely grooved, longitudinally granosely ribbed, swarthy brown within and without; columella rather expanded, shining, lip simple, margined without.

Hab. New Zealand.

A rather sharply acuminated species, granosely ribbed throughout, the uppermost grains being the most prominent, of a swarthy brown within and without, including the columellar enamel.

Species 174. (Mus. Cuming.)

NASSA SCABRIUSCULA. *Nass. testâ ovato-conicâ, acuminatâ, fuscâ, luteo fasciatâ, longitudinaliter plicatâ, striis elevatis asperis spiraliter cancellatâ; aperturâ rotundatâ; labro externo albo, anticè fusco-maculato, extus marginato, intus valdè sulcato.*

THE ROUGH NASSA. Shell ovately conical, acuminated, banded with brown-yellow, longitudinally plaited, spirally cancellated with rough raised striæ; aperture rounded; outer lip white, spotted in front with brown, margined outwardly, inwardly strongly grooved.

POWIS, Pro. Zool. Soc. July 1835.

Hab. Bay of Montija, Central America (dredged from sandy mud at a depth of twelve fathoms); Cuming.

Of rather an elongated form, roughly sculptured throughout, with a small aperture, thickly margined outwardly.

Species 175. (Mus. Cuming.)

NASSA ABYSSICOLA. *Nass. testâ parvâ, ovato-conicâ, sordidè albâ, costellis confertis longitudinalibus permultis, interstitiis concinnè clathratis, ornatâ; columellâ arcuatâ, mediocriter callosâ; labro intus dentato-lirato, extus incrassato.*

THE DEEP-DWELLING NASSA. Shell small, ovately conic, dirty white, ornamented with very numerous close-set longitudinal riblets, the interstices between which are finely latticed; columella arched, slightly callous, lip dentately ridged within, thickened without.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Loay, Island of Bohol, Philippines (dredged from clayey ground at a depth of sixty fathoms); Cuming.

A small colourless species, densely cancellated throughout, with the whorls slightly margined next the sutures.

Species 176. (Mus. Cuming.)

NASSA CINCTELLA. *Nass. testâ ovato-conicâ, albidâ, lineis fuscis cinctâ, longitudinaliter valdè plicatâ, plicis distantibus, liris transversis albis, interstitiis fuscis, ornatâ; columellâ corrugatâ, vix callosâ, labro extus varicoso, intus valdè lirato.*

THE FINELY GIRDLED NASSA. Shell ovately conic, whitish, encircled with brownish lines, longitudinally strongly plaited, plaits distant, ornamented with white transverse ridges, the interstices between which are brown; columella wrinkled, slightly callous, lip varicose without, strongly ridged within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. St. Helena (in sandy mud at twenty fathoms); Cuming.

Chiefly distinguished by the deep brownish grooves between the white transverse ridges.

177.

178.a

178.b

179.

180.a

180.b

181.

182.a

182.b

183.

NASSA.

PLATE XXVII.

Species 177. (Mus. Cuming.)

NASSA STRIATA. *Nass. testâ elongato-conicâ, albidâ, flavescente tinctâ, fortiter longitudinaliter costatâ, transversim densè cancellato-striatâ; aperturâ parviusculâ, columellâ subrugosâ, labro varicoso.*

THE STRIATED NASSA. Shell elongately conical, whitish, tinged with yellow, strongly longitudinally ribbed, transversely densely cancellately striated; aperture rather small; columella subrugose, lip varicose.

C. B. ADAMS, Panama Shells, Annals Lyceum Nat. Hist. New York, vol. v. p. 289.

Hab. Taboga.

Has somewhat the aspect of a discoloured *N. versicolor*.

Species 178. (Mus. Cuming.)

NASSA NUCLEOLUS. *Nass. testâ conicâ, solidiusculâ, albâ, basi rufo-fuscâ, longitudinaliter costatâ, costis subdistantibus, interstitiis transversim tenuiliratis; aperturâ parvâ, circulari, columellâ tenuirugosâ, labro densè varicoso, intus sulcato.*

THE LITTLE KERNEL NASSA. Shell conical, rather solid, white, red-brown at the base, longitudinally ribbed, ribs rather distant, with the interstices transversely finely ridged; aperture small, circular, columella finely wrinkled; lip thickly varicose, grooved within.

PHILIPPI, MS. in Mus. Cuming.

Hab. ——?

A small, rather solid species, distantly ribbed, with a small circular grooved aperture.

Species 179. (Mus. Cuming.)

NASSA LABIDA. *Nass. testâ acuminato-ovatâ, basi truncatâ, pallidâ, sublividâ, nitente, longitudinaliter calloso-costatâ, costis anfractûs ultimi tenuibus, numerosis, confertis; columellâ calloso-expansâ, nitente, aperturâ parviusculâ, fauce suleatâ, labro simplici.*

THE SLIPPERY NASSA. Shell acuminately ovate, truncated at the base, pale, rather livid, shining, longitudinately callously ribbed, ribs of the last whorl fine, numerous, and close-set; columella callously expanded, shining, aperture rather small, interior grooved, lip simple.

Hab. ——?

A very characteristic species, sculptured with a profusion of shining callous ribs, which are large and rather distant in the early whorls of the shell, but very numerous and close-set in the last whorl.

Species 180. (Mus. Cuming.)

NASSA DELICATA. *Nass. testâ ovato-conicâ, subpellucidâ, albidâ, fasciâ angustâ fuscâ maculisque fuscis ornatâ, longitudinaliter costatâ, costis planulatis supernè nodosis, interstitiis lineis elevatis transversis clathratis; columellâ callosâ, anticè tenuè quadriplicatâ, labro varicoso, intus fortiter lirato.*

THE DELICATE NASSA. Shell ovately conical, subpellucid, whitish, ornamented with a narrow brown band and brown spots, longitudinally ribbed, ribs rather flat, nodose at the upper part, interstices latticed with raised transverse lines; columella callous, with four fine plaits in front, lip varicose, interior strongly ridged.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Sorsogon, Island of Luzon, Philippines (in coarse sand at six fathoms); Cuming.

A short, solid, subtransparent species, sparingly blotched with brown, strongly ribbed.

Species 181. (Mus. Cuming.)

NASSA DENSIGRANATA. *Nass. testâ ovatâ, transversim lineari-sulcatâ, longitudinaliter densè plano-granatâ, albidâ, fuscescente tinctâ et fusco-maculatâ; anfractibus ad suturas plicato-nodulosis; columellâ breviter contortâ et callosâ, labro simplici.*

THE CLOSE-GRAINED NASSA. Shell ovate, transversely linearly grooved, longitudinally densely flatly grained, whitish, stained with light brown and brown blotched; whorls plicately noduled at the sutures; columella short-twisted and callous, lip simple.

Hab. Philippine Islands; Cuming.

A characteristic close-grained species, plicately noduled at the sutures, more or less stained throughout with red-brown, and blotched here and there with darker brown.

Species 182. (Mus. Cuming.)

NASSA MADERENSIS. *Nass. testâ acuminatâ, transversim*

tenuisulcatâ, longitudinaliter costatâ, costis in anfractu ultimo evanidis, flavescente, albo et rufo-fusco subtiliter vittatâ; columellâ callosâ, arcuatâ; aperturâ parvâ, labro simplici, subvaricoso.

THE MADEIRA NASSA. Shell acuminated, transversely finely grooved, longitudinally ribbed, ribs obtuse, fading on the last whorl, yellowish, finely filleted with white and red-brown; columella callous, arched; aperture small, lip simple and faintly varicose.

Hab. Madeira.

An acuminated species, obtusely ribbed, the ribs fading on the last whorl, of a pale yellowish colour, filleted transversely with opake-white and red-brown.

Species 183. (Mus. Cuming.)

NASSA ROSACEA. *Nass. testâ acuminato-ovatâ, transversim sulcatâ, longitudinaliter flexuoso-costatâ, intensè roseâ, ad basin nigro-marginatâ; columellâ callosâ; aperturâ parvâ, fauce sulcatâ, labro varicoso, albo.*

THE ROSY NASSA. Shell acuminately ovate, transversely grooved, longitudinally flexuosely ribbed, deep rose, black-edged at the base; columella callous; aperture small, grooved in the interior, lip varicose, white.

Hab. —— ?

A deep transparent rose shell, flexuously ribbed throughout, turned up with black at the edge of the basal canal.

184.

185.a

185.b

186.a

187.a

187.b

186.b

188.a

188.b

189.

NASSA.

PLATE XXVIII.

Species 184. (Mus. Cuming.)

NASSA BELLULA. *Nass. testâ ovatâ, spirâ acuminatâ, acutâ; anfractibus angulatis, pallidulâ, fasciâ luteolâ ornatâ, longitudinaliter plicatâ, transversim liratâ, interstitiis concinnè longitudinaliter striatis; columellâ rugosâ, callo magno expanso tecto, labro margine rugoso calloso, intus crenulato.*

THE PRETTY NASSA. Shell ovate, spire acuminated, sharp, with the whorls angled, pale, ornamented with a yellowish band, longitudinally plaited, transversely ridged, interstices neatly cancellately striated; columella rough, with a large expanded callosity, lip with a rough callous edge, crenulated within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Catbalonga, Island of Samar, Philippines (under stones at low water); Cuming.

An elaborately sculptured species, callous in front, having somewhat a *Mangelia*-like aspect.

Species 185. (Mus. Cuming.)

NASSA CALLOSA. *Nass. testâ parvâ, ovatâ, spirâ acutâ, albâ, fusco-maculatâ, longitudinaliter costatâ, transversim sulcatâ; columellâ anticè triplicatâ, callo magno albo nitido expanso, labro margine incrassato, calloso, intus dentato-lirato.*

THE CALLOUS NASSA. Shell small, ovate, sharp at the spire, white, spotted with brown, longitudinally ribbed, transversely grooved; columella three-plaited in front, with a large white shining expanded callosity, lip thickened and callous at the edge, dentately ridged within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. Bais, Isle of Negros, Philippines (in sandy mud at seven fathoms); Cuming.

A very small species, distinguished by a largely expanded shining callosity in front.

Species 186. (Mus. Cuming.)

NASSA NOVÆ-ZELANDIÆ. *Nass. testâ acuminato-conicâ, nigro fuscoque marmoratâ; spirâ acutâ, suturâ impressâ; anfractibus supernè subangulatis, transversim lineari-sulcatis, longitudinaliter fortiter grano-costatis; columellâ contortâ, albâ, labro tenui, varicoso.*

THE NEW ZEALAND NASSA. Shell acuminately conical, mottled black and brown; spire sharp, with the suture impressed; whorls slightly angled at the upper part, transversely linearly grooved, longitudinally strongly grain-ribbed; columella twisted, white, lip thin, varicose.

Hab. New Zealand.

Of the same typical character as *N. labida*, from the same locality, but more prominently grained and more angulated about the suture.

Species 187. (Mus. Cuming.)

NASSA AMBIGUA. *Nass. testâ acuminato-turritâ, fulvescente, rufo sparsim maculatâ; spirâ acutâ, subexsertâ; anfractibus rotundatis, longitudinaliter prominentè costatis, liris tenuibus cingulatis; columellâ tenuè corrugatâ; aperturâ parvâ, circulari, labro varicoso, albo.*

THE DOUBTFUL NASSA. Shell acuminately turreted, light fulvous, sparingly blotched with red; spire sharp, rather exserted; whorls rounded, longitudinally prominently ribbed, encircled with five ridges; columella finely wrinkled; aperture small, circular, lip varicose, white.

Buccinum ambiguum, Montagu, Test. Brit. pl. 9. f. 7.

Hab. Mediterranean and English Channel.

A delicate transparent fulvous species, spotted here and there, but chiefly near the suture, with brown-red, prominently decussated with longitudinal ribs and cross ridges.

Species 188. (Mus. Cuming.)

NASSA SANCTÆ HELENÆ. *Nass. testâ ovato-conicâ, subturritâ, albidâ, rufo-variegatâ; spirâ productâ; anfractibus rotundatis, longitudinaliter costatis, costis distantibus subnodosis, anfractu ultimo anticè transversim sulcato; columellâ lævi, calloso, anticè uniplicatâ, labro intus lirato.*

THE SAINT HELENA NASSA. Shell ovately conical, subturreted, white, variegated with red; spire produced; whorls rounded, longitudinally ribbed, ribs distant, rather nodose, last whorl transversely grooved in front; columella smooth, callous, one-plaited in front, lip ridged within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. St. Helena (in sandy mud at twenty fathoms); Cuming.

Allied to the European form of *Nassa*, represented by the preceding species.

Species 189. (Mus. Cuming.)

NASSA CORTICATA. *Nass. testâ ovato-conicâ, spirâ productâ, epidermide viridi-fuscâ obtectâ; anfractibus supernè nodosis, ultimo anticè cingulâ subnodosâ ornato, posticè nodulis coronato; columellâ vix callosâ, anticè biplicatâ, labro extus marginato, intus lirato.*

THE BARK-COVERED NASSA. Shell ovately conic, produced at the spire, covered with a greenish-brown epidermis; whorls nodose at the upper part, last whorl ornamented in front with a subnodose belt, posteriorly coronated with nodules; columella but little callous, two-plaited in front, lip margined outwardly, ridged within.

A. ADAMS, Pro. Zool. Soc. March 1851.

Hab. New Zealand.

A distinct typical form of *Nassa*, covered with a thick dark olivaceous epidermis.

00087958

Digitized with financial assistance from the
Government of Maharashtra
on 18 July, 2018